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AMIGA SHOPPER

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Printed by: Southernprint Ltd, Poole, Dorset
ISSN 0961-7302 Printed in the UK
News Trade Distribution – UK and worldwide:
Future Publishing ☎ 01225 442244

ABC **Member of the Audit Bureau of Circulation**
Audited circulation January to June 1995: **21,198**

Inside issue

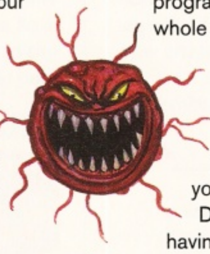
With Amigas back in the High Street and walking off the shelves, the New Year will also be a new beginning for our favourite machine...

With the festive season upon us (or fast approaching, anyway), I would like to welcome our new readers to the world's best serious Amiga magazine (hey, we're not modest!). I would also like to thank all of our regular readers and subscribers who have stuck loyally with us and the Amiga throughout the past year or so of troubles. We look forward to the Amiga (and Amiga Shopper) going from strength to strength again next year.

Meanwhile, we have plenty of stuff in this issue to keep you interested while everyone else is watching the Bond movie for the millionth time.



First up is a special report from the Solectron factory in Bordeaux, where the new A1200s are being assembled; where we also learned that RISC is definitely on the cards for next year.



Then we have the excellent IntOS for AMOS on our Coverdisk – the full program – plus a whole host of other programs – over 5Mb in total.



And if you have ever worried about your Amiga picking up a virus, then David's advice on how to prevent them having access to your Amiga in the first place, and how to cure them if they do get in is on page 22. Read this and all your worries of infection will be over.

We've always maintained that the Amiga was a multimedia machine, even before the term was first coined. Find out how and why the Amiga is the best multimedia machine around in our feature on page 28.

And then we have loads of reviews, tutorials, PD, Answers, letters – plenty to keep you going till next month!

It just remains for me to wish you all a hearty Merry Christmas from the Amiga Shopper team. Raise your glasses to the New Year! ■

Sue Grant
Editor

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Annual subscription rate: The subscription rate for 12 issues of Amiga Shopper including postage is £51 (UK), £58.92 (EC), £71.52 (Rest Of World).

Turn the page for the contents of issue **57**

The **essential** magazine for Amiga enthusiasts

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The new genlock from G2 has the potential to earn you money and prestige.



Check out the speedy new Blizzard 1230-IV from Gordon Harwoods on page 44.

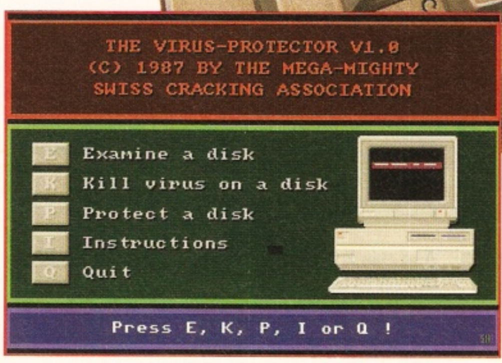
Virus killer ______ p22

Viruses can be a complete disaster if you let them get into your Amiga. Certain types of virus have the potential to destroy everything on your Amiga. Others are just an annoyance. But how can we prevent these nasty little programs getting anywhere near our machines? And how do we cure them if we're unlucky enough to be infected? **David Taylor** has all the answers in our feature over on page 22. You'll also find some virus checker programs in the Virus Protection Zone on our Coverdisks.









Destroy viruses before they destroy your work. We give you the power!

Shopper**Disks**

Amiga Shopper's Coverdisks are not just any old two disks. There are seven specially-selected disks packed on to these two beauties. Here're the contents:





IntOS

Once again, we have managed to cram over 5Mb on to our Coverdisks. **David Taylor** *tells you all about them...*

IntOS is an Intuition extension for the BASIC programming language AMOS. It adds over 120 new commands to the already bulging AMOS command set. Once you have installed IntOS these new commands enable you to easily open real Intuition screens and windows and give you full control over gadgets and menus. IntOS opens a whole new world to budding utility and application programmers keen to conform to the Amiga's Intuition standards.

Obviously, we can't show you how to use all of the 120 commands available in these three pages, but we can get you started, and probably hooked, on this great extension. Read the boxout on how to install IntOS before starting.

Now we're ready to type in our first IntOS program. We will keep things simple and just open a window on the Workbench, print a message in the window and wait for a mouse button to be pressed.

Load `IntOS_All_Procs` into AMOS and go to the line that says:

```
"REM>>****- Your Code Here!! -****<<"
```

Delete the entire line if you want, and type in the following lines. Comments are preceded by a "'" – you don't *have* to type them in:

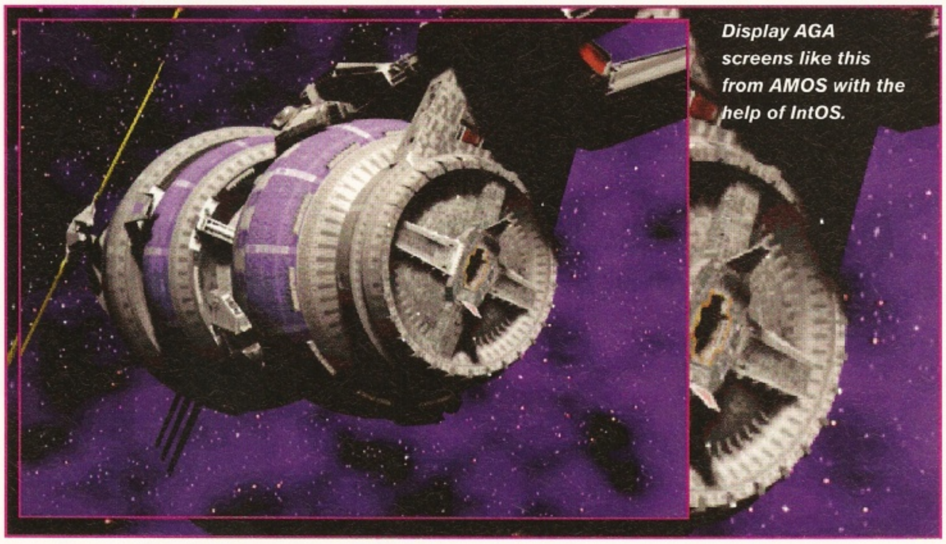
```
'Get the Workbench screen as screen 0
IN_WB_TO_SCREEN_[0]

'Open a simple window
IN_WINDOW_[0,160,12,320,188,$100E,"Hello",-1]
```

Installing IntOS

Once you have de-archived the programs on our Coverdisks (see the box for beginners opposite), whether to floppy or hard disk, you may still need to install certain parts of the software to specific parts of your system disks or partition, if you have a hard drive. With IntOS, for instance, you must copy the IntOS.custlib to your Libs: directory. You can do this using Workbench or CLI, e.g. "copy df1:libs/IntOS.custlib to libs: <return>".

There are more instructions on the IntOS Coverdisk.



Display AGA screens like this from AMOS with the help of IntOS.

```
'Print a message
IN_RPRINT_["Press Left Mouse Button"]

'Wait for mouse click
IN_WAIT_RAT
```

Save the program, just in case, and then run it. Pretty impressive for four lines of code, eh?

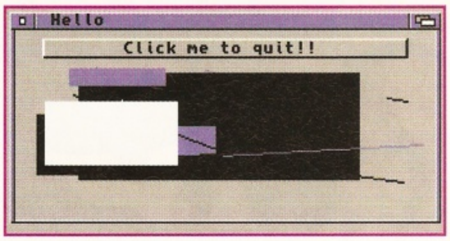
Here is a quick explanation of what is happening in the above example:

```
IN_WB_TO_SCREEN_[0]
```

Before a window can be opened you must tell IntOS what screen the window must use. The above line uses the Workbench screen.

```
IN_WINDOW_[0,160,12,320,188,$100E,"Amiga Shopper",-1]
```

This opens an Intuition window on the current screen. The `0` is just an ID number. You can have up to 64 windows open at the same time. Each one needs an ID number so you can keep track of it. The next two numbers `160` and `12` are the top right-hand screen coordinates of where we want the window placed. If you're not sure what coordinates to use, just experiment and you will soon catch on. The `320` and `188` are the width and height of the window in pixels. The `Amiga Shopper` bit is the title of the window, you will see this text appear at the top of the window bar. The `-1` tells IntOS that there are no gadgets (buttons) available in this window. The `$100E` is a window flag and the number you use determines what features the window will support.



IntOS's Turbo commands example. This window, some graphics and a button were drawn in a flash!

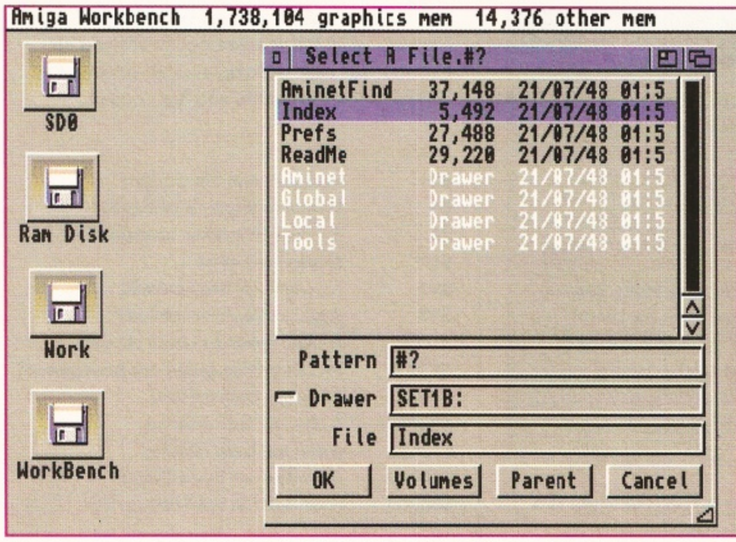
```
IN_RPRINT_["Press Left Mouse Button"]
```

This line prints a message inside the window.

```
IN_WAIT_RAT
```

And this line just sits there waiting for a mouse button to be clicked.

It's pretty simple code compared to the complexities of calling libraries manually from within AMOS. IntOS does all the complicated work for you.



The AMOS file requester is a horror from the past. Now with IntOS you can use the standard ASL file requester that everyone knows and loves.

Calling a file requester

Just to give you an idea of how easy it all is, here is how to get an ASL file requester up and running on your Workbench screen and returning the selected file string to AMOS.

First, load `ALL_PROCS.AMOS` which contains all of IntOS's procedures. You can later delete unneeded procedures when your program is complete. Once loaded, a REM will tell you where to enter your code. This is what you need:

```
IN_WB_TO_SCREEN_[0]
IN_FSEL_[0,0,320,200,"Select A
File.","ram:","","#?"]
SEL$=Param$
Print SEL$
```

(Sel$ will hold the path and file of anything selected.)

All those numbers and things in the `IN_FSEL_` line look confusing, but they make sense if you take a closer look.

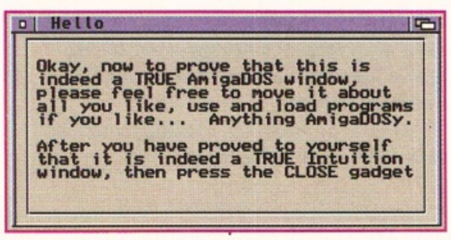
Here is what the parameters represent:

```
IN_FSEL_[x,y,width,height,"TEXT","DIR
:","","#?"]
```

- `x` – x co-ordinate
- `y` – y co-ordinate
- `width` – Width of box (max 640)
- `height` – Height of box (max 256)
- `"TEXT"` – Message text
- `"DIR:"` – Directory path to open
- `""` – Leave this as null string
- `"#?"` – File pattern

Displaying AGA screens

Here is how to display a high-res interlaced, 256-colour pic using IntOS.



The IntOS window demo explains quite a few useful window manipulation commands.

```
IN_SCREEN_[1,0,640,512,8,$8004,""]
IN_LOAD_IFF_[1,"work:AGA_PIC.IFF",0]
IN_WAIT_RAT
```

The first line is similar to AMOS's `SCREEN OPEN` command, but it opens an Intuition screen. In this case the screen is to be numbered 1, (you can have up to 63 screens). The `0` is the Y positioning of the screen, `640,512` is the size of the screen. The `8` is the screen depth which is 256 colours and the `$8004` indicates the screen mode, high-res + Interlace. See the sections on depth and screen modes.

The `IN_LOAD_IFF` command is virtually the same as AMOS's. The `IN_WAIT_RAT` is a mouse wait command explained earlier. If you combined the file requester routine and this AGA routine you would have just written the beginnings of a simple AGA picture viewer. You could present the user the ASL file requester to select the PIC and then use the above routine to display it. Not bad in a few lines.

One problem with loading large AGA pictures from IntOS is that the user gets to see the picture being "built" on screen as it is loaded. To avoid this problem just delete the `AMOS To Back` line at the beginning of the IntOS code and instead insert it after the `IN_LOAD_IFF` command. This way the picture is built out of view and when it is ready you then flip to the Workbench screen.

```
IN_SCREEN_[1,0,640,512,8,$8004,""]
IN_LOAD_IFF_[1,"work:AGA_PIC.IFF",0]
AMOS To Back
IN_WAIT_RAT
```

Hints and tips

Remember, if you do not tell IntOS to use a screen then you can't open a window and if you do not open a window some commands will not work. As a general rule most of your IntOS programs will need at least one of the following lines, or versions of them tailored to your tastes.

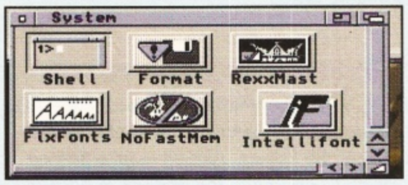
```
'Use the Workbench screen as screen 0
IN_WB_TO_SCREEN_[0]

'Open a Window
IN_WINDOW_[0,160,12,320,188,$100E,"Title",-1]
```

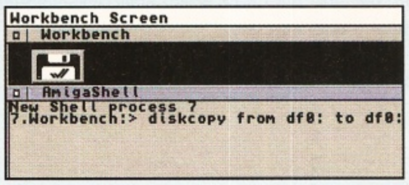
Beginners, look!



Before using either of this month's Coverdisks, please be sure to back them up – just in case. Simply follow the easy instructions below.



1 ***Boot up from your Workbench disk or partition, double-click on your Shell icon – to be found in your System Drawer.***



2 ***If you only have one disk drive, type in the following line and then press Return.***

```
Diskcopy from DF0: to DF0:
```

If you have two drives, place the Coverdisk in DF0: and a blank in DF1:, then type in this line instead:

```
Diskcopy from DF0: to DF1:
```

3 ***Follow the on-screen prompts and remember that the Coverdisk is the source disk and the blank is the destination.***

4 ***If you used the two-drive method, remember to rename the copy by clicking on its icon and pressing right-Amiga r.***

5 ***If you have two drives, you can also copy the disk from Workbench by dragging the Coverdisk icon over the destination disk's.***

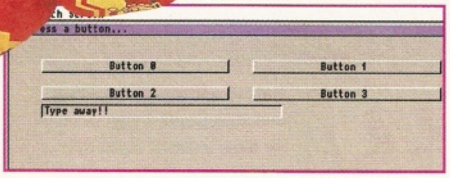
6 ***Then place either of the Coverdisks in DF0: and reset the Amiga to boot it. It is best to boot disk 1 (or the Subs disk if you're a subscriber). This will let you install all the disks to either floppy or hard drive.***

The IntOS on-disk examples suggest using the AMOS `Break Off` command, but it would be wise not to use this while developing your program. Insert your `Break Off` command only when you are ready to compile it.

If your program does not make use of certain IntOS commands you can delete the appropriate procedures to save space and memory. IntOS supports its own sub-language called Turbo which is similar in style to AMOS's Amal sub-language.

Turbo can give speed increases of up 70 per cent if you are using a lot of IntOS commands in your program. To use the Turbo version of IntOS you need to put your IntOS commands in strings. There are also lots of other rules to using Turbo which we don't have the space to cover here. See the example Turbo program on the IntOS disk for more info.

▶ 8



The IntOS buttons and Gadgets example code strutting its stuff.

Things to remember

The IN_SCREEN command, as used in the AGA screen example, requires a parameter for the "depth" of the screen. AMOS uses a simpler approach to assigning the amount of colours to a screen (i.e. you state the actual amount). Don't get confused with IntOS's more traditional method of depth. The following chart can be used for easy reference when assigning colours to your IntOS screens:

Colours	Depth
2	1
4	2
8	3
16	4
32	5 (low-res only)
64	6 (low-res only)
128	7 (AGA only)
256	8 (AGA only)

Screen modes in AMOS are usually defined by low-res, high-res and Interlace. IntOS is different, or rather AMOS is different to that of most other programming languages. Here is a chart for IntOS screen modes:

Code	Screen mode
$0	Low-res
$4	Interlace
$20	SuperHigh-res (AGA only! – use with $8000)
$8000	Hi-res

Don't forget you can only use AGA modes on an AGA Amiga. In the supplied IntOS example programs you may have come across the command IN_WAIT_EVENT. This command halts the IntOS program as well as AMOS itself until an AmigaDOS event occurs. An event can be something like a disk being inserted or removed or a window's close gadget being clicked. By knowing what these event codes are you can tell what the user is doing and act accordingly. Here's a chart of events and their codes:

Code	Event
$2	Window's size has changed
$4	Window's display is corrupted
$8	A mouse button has been pressed
$10	Mouse has moved
$20	A gadget has been pressed
$40	A gadget has been released
$100	A menu option has been chosen
$200	Windows close gadget has been pressed
$400	A key has been pressed
$8000	A disk has been inserted
$10000	A disk has been removed
$40000	A window has bee activated
$80000	A window has been de-activated

Here's a simple piece of code that loops until the user clicks on the close window gadget (Event code $200).

```
'Set screen
IN_WB_TO_SCREEN_[0]
'Open a window
IN_WINDOW_[0,160,12,320,128,$100E,"Cl
ick on the close gadget",-1]  Repeat
   ' Wait for an event
   IN_WAIT_EVENT
'Ev holds the event code
   EV=Param
'loop until close gadget is detected
Until EV=$200
```
■

Dodgy disk?

To avoid errors when installing to floppies, ensure that your destination disks are of high quality. If an error occurs, try re-booting and using a different spare disk – the majority of errors are caused by faulty destination disks.

If your Coverdisk absolutely refuses to work and you are certain it is faulty, please return it, along with an S.A.E., to:

Amiga Shopper Coverdisk (insert the name of the disk), Discopy Labs Ltd., PO Box 21, Daventry NN11 5BU.

IntOS and PowerBase offer from OTM

Now you've had a chance to try out the excellent IntOS for AMOS program on our Coverdisk this month, you may like to take advantage of a couple of brilliant money-saving offers from OTM, which are exclusive to Amiga Shopper readers.

IntOS manual

OTM are offering Amiga Shopper readers the chance to buy the IntOS manual for just £7.95. That's a huge saving of £17 on the recommended retail price of the program and the manual. IntOS for AMOS is FREE on this month's Amiga Shopper Coverdisk!

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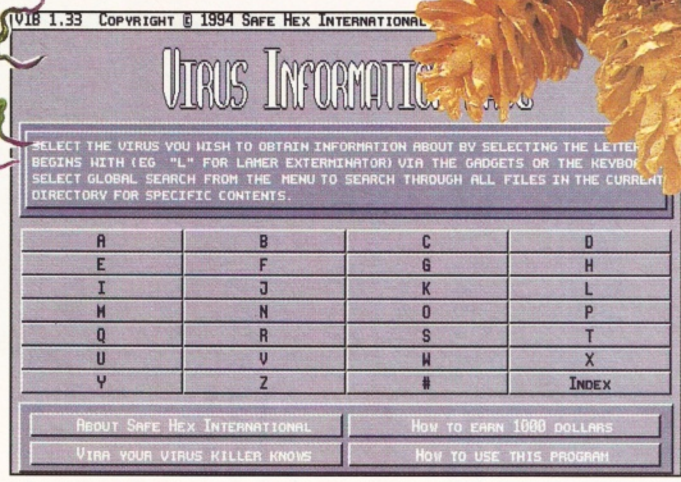
Shopper**Choice**

There's much more besides the IntOS package on this month's Coverdisks, including a selection of programs to help you protect your Amiga and a brand new music editor.



Back with yet more programs to add to your arsenal, ShopperChoice has everything divided into appropriate 'zones' so that you can go directly to those programs that interest you. There's a slight change to the zones this month, with a Virus Protection Zone to complement our virus feature on page 22. To make room for this, there's no Creative Zone or Programming Zone this month, but programmers should find our first disk enough to be getting on with!





Virus Information Base, maintained by Safe Hex International, gives you all the information you need about every known Amiga virus.

Virus Protection**Zone**

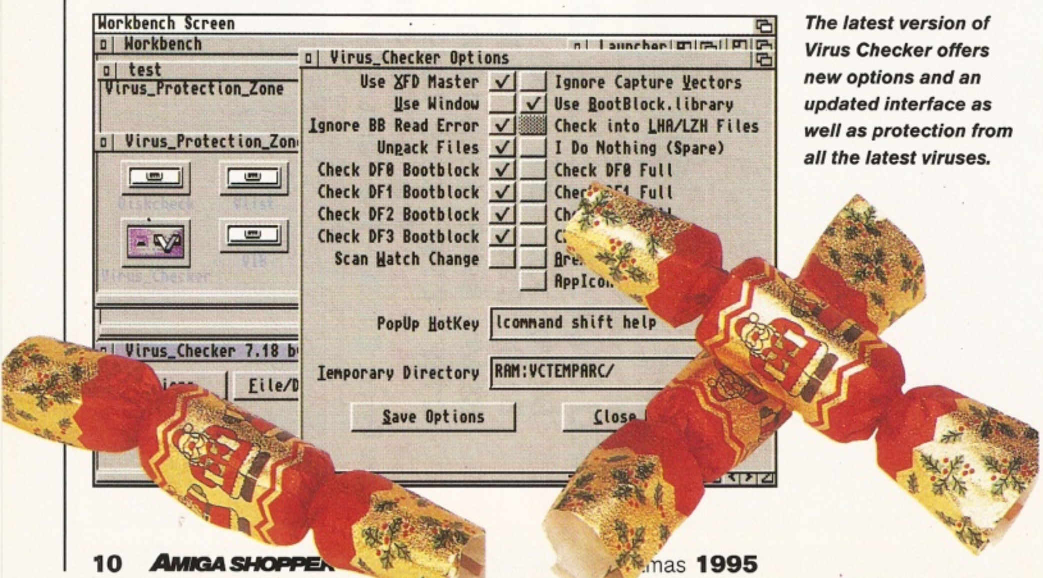
It's a sad fact of modern day life that while computers are there to make our lives easier, there are some people who want to screw things up for us. And getting a virus will certainly do that. Help is at hand, however. This month we have a special feature on viruses and how to avoid them, so it seemed natural to include the programs that you'll need to keep your system safe on our Coverdisk. That's where this special zone comes in. You can find four indispensable programs here that should help you protect your computer.



Virus Checker 7.18

First and foremost, it's important to make sure that you have an up-to-date virus checker running at all times. Virus Checker is one of the most famous and this is a brand new version which has new features as well as protection against all known viruses, including the latest ones. Among the new features is the ability to check for viruses directly from a Workbench menu item. Virus Checker, in the words of its author, "Is designed to hunt out Amiga viruses and kill them. It also scans memory on startup and checks all suspect vectors. And it checks certain memory locations every two seconds for infection." From this you can see why so many people choose to have it running immediately every time they boot up. While this is important for everybody, it is absolutely essential for hard drive owners – could you really face reformatting your entire drive?

This new release can also, when registered, check archive files for possible viruses so that you don't de-archive one by accident. It can also detect the viruses – such as the dangerous and ominously-named $4eb9 link virus – that are written into fake programs, such as bogus releases of Directory Opus. Don't forget that even after de-archiving this program, it does need to be installed from the installation icon to be put on to your system. The options should also be set correctly for your system or you may get error messages. Read the documentation fully before starting.



The latest version of Virus Checker offers new options and an updated interface as well as protection from all the latest viruses.

Virus Information Base

What should you do should the worst come to the worst and you do get a virus? How many viruses are there? What exactly do they do? How dangerous are they?

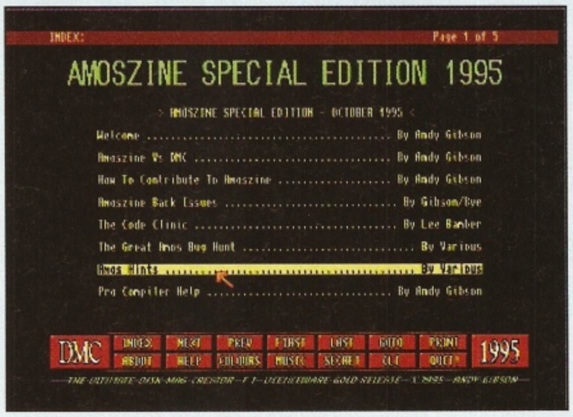
Have you ever wondered about any of these things? Well, here's the program to sort it all out for you. It is a full database that runs independently and has information on every known Amiga virus. It gives you all the details you need, including what the symptoms of each virus are and how you can deal with it. Virus Information Base (VIB) is compiled by members of Safe Hex International (SHI), who are trying to make computing as safe as possible.

In order for this program to work, you must have the AmigaGuide.library in your libs: drawer. This is included with more recent releases of Workbench, but can be easily obtained from a PD library if you don't have it. VIB also requires a couple of assigns for it to find certain information. There are two icons for both floppy

and hard disk users. If you double-click on the appropriate icon, the assigns will be made for you. If you want to make these assigns permanent, you will need to add them to your User-StartUp. If you are running from floppy, put the second disk from the Virus Protection Zone in a second drive when you make the assigns. If you've only got one drive, then you will need to swap disks when requested. Some of the data is stored on the first floppy and some on the second because it is so large. A rough guide to which disk you need is that the descriptions of the viruses are on the second disk and the rest are on the first.

There are another two files in this zone. The first is called **DiskCheck,** and when placed in your StartUp-Sequence it will check for any changes made to your disk. This can help you make sure that vital disks are not tampered with. **Vlist** is a document that lists the dangerous and fake archives that are known to contain viruses, so you can easily avoid them. Used together, these programs should help you make sure that you never lose out to the losers who write viruses. Remember, always practice safe hex.

Licenceware: AMOSzine



This month we have another Licenceware title for you. This is an exclusive edition of AMOSzine which is compiled from some of the best articles and source code from earlier issues. We thought it was an ideal accompaniment to the IntOS package also given away this month. It has articles for both beginners and experts and should prove interesting.

If you like this issue, you can also get hold of any of the other issues from F1 Licenceware ☎ 01392 493580. There are more details on the disk, which autoboots and loads the index to the files available.

Application**Zone**

MusicLine Editor

In last month's PD section we reviewed this program and gave it a spanking 95 per cent. But it was obtained from the Internet and quite a lot of you would have had trouble getting it. At the time, the archive was too big to fit on to a Coverdisk, but after discussion with the authors, we've got a full version registered for Amiga Shopper readers, which has the extraneous files (such as the CLI commands that we all have on Workbench) removed.

So, it's with great pleasure that we can provide you with this exclusive version with which you can create musical masterpieces. There are several example modules for you to listen to and play with, as well as some instruments. We did have to leave off the largest module that comes with the package, because there wasn't room, but AS subscribers can find an additional module on this month's Subs disk.

The program does expect an assign for the volume `Mline:` to find all the module directories. You should either make one each time or add one to your User-StartUp.

The assign needs to redirect `Mline:` to `AS57_Application_Zone1 /Mline/musiclineeditor/` on whichever disk it is stored on.

There are also some fonts to be installed to your Fonts: directory on your system disk. There was a small error made during translation and you need to rename the font directory and the .font to "musicline" and musicline.font, respectively, when you copy them. This is all covered in an installation document in the directory (except for renaming the font which was discovered by the author after we had pressed our disks, but I am sure you can manage to rename a file!).

Remember, that although this is the full version, it is still Shareware and registering will make you eligible for regular updates.

PDBase

With us packing so much on to each and every set of Coverdisks, you're soon going to find keeping track of programs a real problem, especially if you have a modem and download even more files. This is a PD database creator that allows you to detail programs, place them in subgroups and link in files that refer to programs as well as any related programs. It uses MUI (which you'll need to run it) and so has a very smart interface and is remarkably easy to use.

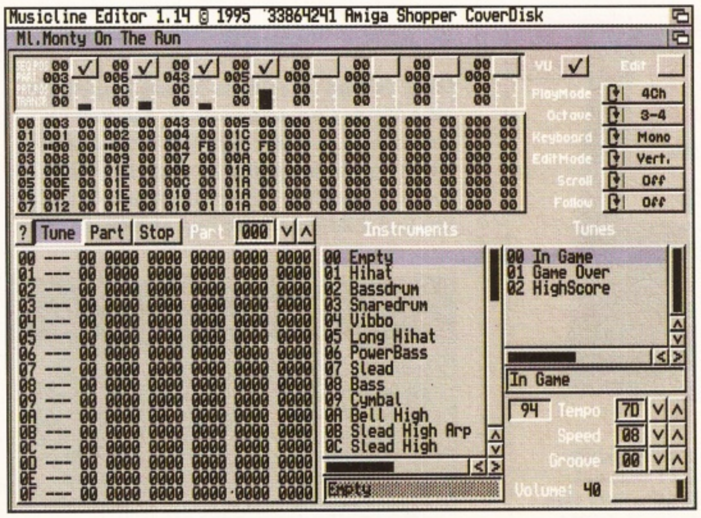
You can add comments for each program, search easily and edit entries whenever a program is updated. It makes keeping track easy by adding automation to the process. A full AmigaGuide manual is supplied, so read that first to see how to use it to its full potential.

Technical**Zone**

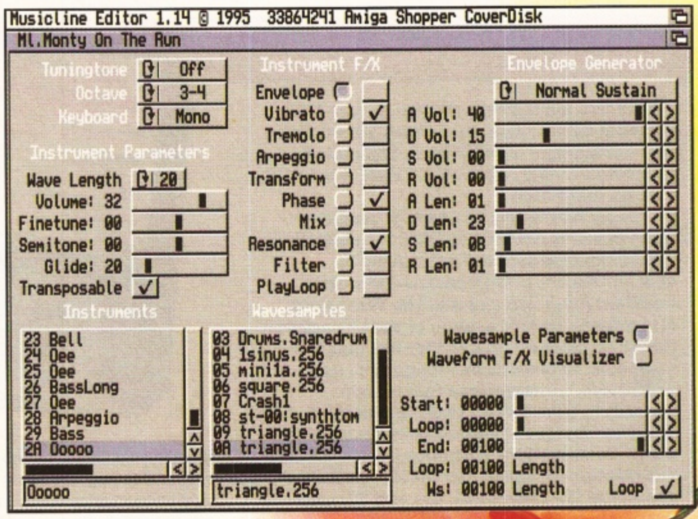
This month's Technical Zone has a host of excellent programs. There's the long-awaited update to XDM, the program that allows you to pack Non-DOS disks using LZX and a brilliant compressor for audio samples.

- **XDM 2** is a program with both a GUI and Shell interface that uses LZX (which you must have in your C: directory). It has quite high memory overheads (requiring 2Mb RAM) because it has to create temporary files.
- **AudComp** enables you to compress samples much better than previously possible. It is a Shell command, and there are two versions: one is for normal processors and the other is for those with an FPU. You can select a

▶ 12

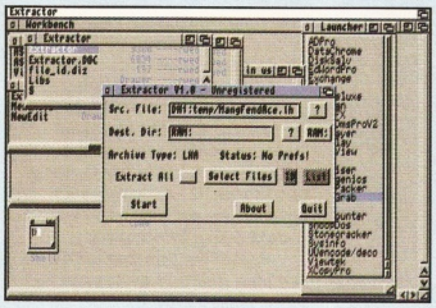


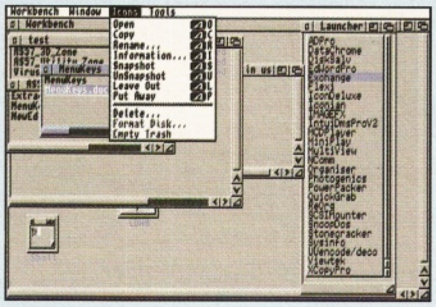
MusicLine Editor offers a new way to create music modules...



...and includes a full instrument editor for maximum user power.

UtilityZone





Extractor

Unless you're an experienced CLI user, you're likely to hate the mention of commands and positively wince at the word "archiver".

But Extractor could be the solution for you. It is a program that removes the CLI interface for the archivers by allowing you to use this one simple GUI. You do still need to have the CLI commands in your C: directory, but then it's simply a case of selecting the source archive and telling Extractor where you'd like it de-archived to. The whole process then happens automatically.

Registering the program also allows you to use it with the new LZX archiver.

Menukeys

Here's a small, but handy utility. Once installed, a hotkey will allow you to jump to the menus from the keyboard and move along them using arrow keys and the shift key. This way you can jump around menus and submenus and select items without having to go to your mouse.

NewEdit

NewEdit is a utility that can add some new features easily to your Workbench. Want to be able to copy and paste within a Shell window? NewEdit lets you do this and much more.

Disk contributions

This month's disks were compiled using files from Aminet and from Walton's Mountain BBS, ☎ 0181 891 5730, and with the help of the authors of the programs.

If you would like to contribute to a future disk, whether it's a full application, utility, 40K demo, clip art, font, 3D object, or even a module, send it to:

David Taylor,
Amiga Shopper Coverdisk Contributions,
30 Monmouth Street,
Bath, Avon BA1 2BW.

Please only send the minimum distribution archive. Also, please do not powerpack (or similar) any files because it detracts from the archiving.



The 3D Zone contains a demo object for you to try out from the new collection, reviewed p41.

compression rate and the sample is then packed "lossy" style, which means that the greater the compression rate, the greater the loss of quality. But the good news is that when a sample is compressed at the highest ratio, there should be very little audible difference and when you archive the new sample, you can reduce the original size by two-thirds.

● **SCD** or Smart Change Directory will build a list of your directories and then allow you to enter the name or part name of any sub-directory and it will move you directly there, saving you the trouble of entering the full, and sometimes extensive, pathname.

● **Slowboot** is a program for all those people with hard disks that don't spin up fast enough and requires them to reset to get it to work. Slowboot delays StartUp and allows you to boot directly.

● **Diskreset** is a simple command to enable you to make the machine reboot should a disk be removed from the disk drive.

● **Retire** performs a simple, but useful task, removing any stated program from the User-StartUp, so that you can easily un-install programs that have written assigns or special requirements to your system's StartUp.

InformationZone

This zone is becoming more and more popular and is helping us to provide you with the most up-to-date guide to PD Houses and User Groups. There have been quite a few updated entries since last issue and as ever, you can find both directories in both AmigaGuide and plain ASCII format. All that you have to do is double-click on the icon to see the text. (Unless you want to change the text reader, in which case, single-click on the icon, select information from the Icon menu on Workbench and change the default tool.)

Thanks to the PD houses for continually sending in their updated details and their positive comments. Flattery is always welcome.

3DZone

The 3D Zone contains a huge and detailed demo object from the Dino Verse selection reviewed this month on page 41. It's for Imagine users and includes the IFF brushmaps for the image. If you are interested in getting the full collection of objects, then check out the review for more details. This is a demo file and as such has one side of the skeletal object disabled. If you are looking for more 3D objects, you can find some on this month's Subscribers' disk.

Well, all that remains is for me to wish you all a Merry Christmas and I'll see you in the New Year. Don't forget that you can submit your programs for inclusion on a future Coverdisk by sending them to me at the usual address (see box above). ■

Subscribers' Disk

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Every month Amiga Shopper produces three disks. In addition to the Coverdisks there is an extra disk sent out exclusively to subscribers. It's always packed full with excellent programs and utilities. This month, for instance, there's a demo of the Licenceware title DMC (Disk Magazine Creator) that has been used to compile diskmags such as AMOSzine, which you can find on our Coverdisk. Then there's Flick, the brilliant utility to display FLI animations; AmigaStart, which can transform your boot-up into a Workstation lookalike and AKCC, a full set of additional CLI commands. Oh, and there's FontView, Encryptor and WBLaunch,



Ktooltypes, 3D objects and a music module. Sounds good? It sure is. So don't miss out. Subscribe today to ensure you get a third disk every month. See page 72 or ☎ 01225 822511.

Shareware notice!

Remember that a number of the programs on these disks are some form of Shareware. AS have compiled the disk with the help of the authors, who have received no fee from us. So, if you keep and use these programs, you *must* register. Some people only want a postcard, so *please* put in the effort. They did when they created the program.

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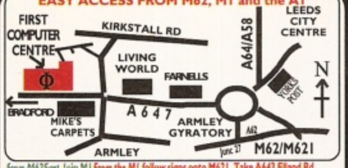
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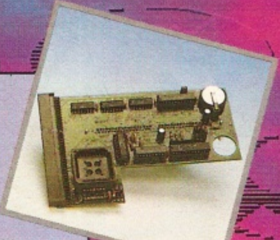
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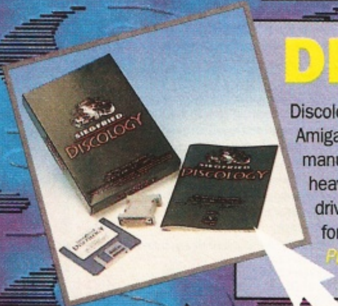
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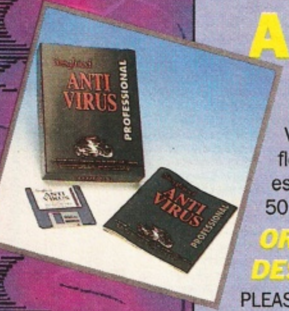
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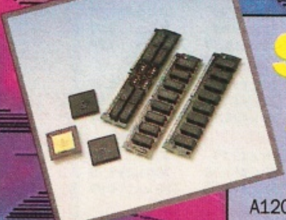
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All prices include VAT. Postage and packing will be charged at £3.50 per order (U.K.), £7.50 Europe and £12.50 rest of the world.

News

This month in Amiga Shopper news: A special report from the factory making A1200s; a new CD-ROM drive from Amiga Technologies: the World Of Amiga Show is on and AMOS is back...

It's definitely back

Special report by **Anna Grenstam**

There they were – a glorious mountain of Amigas, all packed and ready to be shipped off to Tandy's in the UK. (Tandy are stocking Amiga Magic packs in 130 of their stores nationwide.) So, after a year and a half the Amiga is really back in production. Rumours of devious plans on Escom's part to scrap our beloved machine; rob it of its 'precious' parts and turn it into a PC; etc., etc., should now once and for all be silenced.

To make absolutely sure that it wasn't a massive cover-up, I was sent to Bordeaux following an invitation by Amiga Technologies to tour the birth-place of the re-born A1200 – the Solectron plant in the heart of Europe.

Solectron Corporation is a company name Amiga users will get very well acquainted with from now on. It is at their plant in Canéjan outside Bordeaux that the A1200s are produced and the Amiga Magic packs assembled. And it is to a large part thanks to them that an estimated 70,000 Amigas will be available in the shops worldwide before Christmas.



Above: Petro Tyschtschenko and chum with a "little green board". Below: The assembly line at Solectron and Amigas boxed up and ready for Tandys.



Solectron was founded in 1977 and have, besides their headquarters in Bordeaux, three plants in the US (North Carolina, Washington State and California), one in Malaysia, one in Scotland, one in Germany and a commercial office in Tokyo. They employ 11,000 people worldwide and of those 93 presently work on the Amiga in three shifts, 24 hours a day, seven days a week.

After being shown around the factories, watching the little green boards whizzing in and out of high-tech machines and being checked and double-checked by white-coated, eagle-eyed people in deep concentration, brought a sentimental tear to my eye. Seeing is believing they say and I came, saw and... eh, believed. To say that the future of the Amiga is looking brighter than a few months ago is an understatement to say the least.

"Power to the user" is Amiga Technologies' long and short-term goal and going RISC is a priority for them. It is a project they hope to complete in 6-18 months. Porting the Operating System to a new generation of hardware technology in a user-friendly manner is the best way to keep loyal users and gain new ones.

Short-term plans include implementing the fast 68060 Motorola processor. Longer-term, talks are presently being held with NewTek about the Video Toaster as standard. The Information Superhighway is also something Amiga Technologies realise is the future of home computing and Internet-specific Amiga bundles are definitely on the agenda.

In terms of new machines, AT promised that a machine with specifications somewhere between the A1200 and A4000 will be under development in the near future. As to what we can expect from it, Mr Petro Tyschtschenko said: "You will have to wait a bit longer for that".







Silica going strong

Rumours of problems at Silica were clarified just as we went to press. Although their parent company applied for an Administration Order to protect the company and give themselves time to sort their finances out, trading has continued as usual. The parent company, Prodis PLC, is experiencing financial difficulties, caused largely by the shortage of Amigas for sale over the last year.

The mood from Silica is very positive, with John Arundel saying that no matter what happened "Silica would continue." The feeling is that if Prodis ends up having its assets sold off, Silica will be bought up by an outside company that will not want to affect the successful Amiga section of the company. People buying machines from Silica would then still deal with Silica, although it may have a different owner.

So what difference does this make to the distribution of the Amiga? Well, none at all, because when we spoke to Jonathan Anderson of Amiga Technologies he stressed that they were confident that Prodis would sort their problems out, and Amiga Technologies are "still supplying SDL with Amigas". SDL are one of the two distributors of the Amiga (Leisuresoft are the other), and Silica are SDL's shop outlet. In fact, when I spoke to Jonathan he had just arranged another delivery of Amigas to SDL. And if Amiga Technologies are prepared to carry on supplying them with new machines, they must be very confident that their money is in safe hands.

The first we heard that Silica were in difficulty was a tiny announcement placed in the Legal



Silica are bundling extra games software with their Amiga Magic packs.

Notices section of The Times. The notice began "Notice of Administration Order in the matter of Prodis PLC, T/A SDL (UK) & Silica". Prodis PLC quickly quashed incorrect rumours that this meant liquidation or receivership and sent a press release out explaining what Administration actually means.

What it essentially means is that Prodis have protection under the Administration Order and can continue trading under the Administrators for at least three months. This should give them plenty of time to sort their cash-flow problems out, or find a buyer if they can't. Jonathan Anderson also told us that if Prodis couldn't continue trading there was nothing to worry about because he had already heard rumours that several bids had already been placed for SDL and Silica and that there was plenty of interest in them both from outside companies.

Just don't leave it too long, Mr Tyschtschenko, the loyal Amiga-users need to see that money is invested in R&D (Research & Development) as well as serious marketing of their favourite machine. Personally, I have no doubts that the Amiga is in good and capable hands, and that there's very exciting times ahead for us. Our patience has paid off, it seems, and it is with renewed enthusiasm I watch this space.

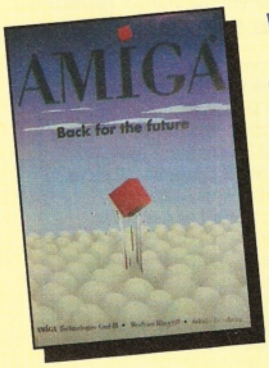
Stop press

As we were going to press, John Smith of Amiga Technologies gave us details of a new external add-on CD-ROM drive that they will be producing for the A600 and A1200. The really good news is that this drive will be CD^{32} compatible through software emulation supplied with the drive. Supplied software will also play Audio CDs and view Photo CDs. The Q drive is ISO 9660 standard with Hi-Fi stereo sound output which can mix sound with the Amiga's sound output. Attaching easily to the PCMCIA slot, the fast 16-bit ATAPI/IDE bus compliments the drive's quad-speed capacity well. The Q drive will cost £229 (RRP) and will be available at the beginning of December.

John Smith also confirmed that Amiga 4000 040s will be on sale in early November and that SDL and Leisuresoft will be distributing them. And apparently, you *will* find Amigas on sale at 200 Escom stores in the UK.

Scala memory

And those people who have bought or are thinking of buying the A1200 HD bundle may have noticed that Scala MM300 needs more than the standard 2Mb of RAM – previously there was no mention of this on the pack, but Amiga Technologies will now be placing stickers on the bundle saying something like "requires extra memory – not in box", which should make it clear to potential buyers that they need the extra memory to run Scala. ■



What do *you* want?

Amiga Technologies needs to know what you, the Amiga users, want from your machine. In short, what makes the Amiga so good and what could be improved upon? So, instead of spending your time whining about everything Amiga Technologies have done wrong in your opinion, why not be part of a positive force to make the next Amiga what you want it to be? Write (as clearly and succinctly as possible) with your ideas and criticisms to:

Mr Petro Tyschtschenko,
Amiga Technologies GmbH,
Berliner Ring 89,
D-64625 Bensheim.
Fax: +49 6252 709 520
E-mail: gbo@amiga-tech.de

Tit**bits**

World Of Amiga Show

An important date for your diary is the World Of Amiga Show which will take place over the weekend of 6th and 7th January 1996. Although the dates have been decided, the location hasn't been confirmed at the time of writing. Keep your eyes on the Amiga press for further details of ticket prices, etc. Obviously, we'll bring you more news next month.

Graphically explicit!

For those of you who are inclined to forget – here's a reminder. The Computer Graphic Expo '95 is on 28th-30th November at Wembley Conference and Exhibition Centre in London.

The show is expected to be even bigger and better than last year's. Running alongside it will be The London Effects and Animation Festival which will include presentations by Sir David Puttnam, Pixar and Disney, with sneak previews of the first solely digitally produced feature-length film, Toy Story. More details ☎ 0181 995 3632.

Fishy business

Two new CD titles are available from Amiga Library Services. GoldFish 3 is the update from the previous FreshFish v8-10 and has been changed to an unarchived single CD format with a more user-friendly system and it costs £13. Eric Schwartz Productions' CD-Archive contains all of Eric's previously released animations and artwork, plus some new ones and Imagine and LightWave 3D objects. The cost? £16. ☎ +602 491 0442.

Party animals

To keep all Amiga ravers content, Almathera have released Euroscene 2, and guarantee that there's no repetition of material from the first title. Containing more than 500Mb of data, it has the best releases from this year's demo parties and comes with support tools and utilities. It costs £14.95. Call ☎ 0181 687 0040.

Titbits

New horizon

Horizon Software up until now have only sold commercial software, but they are sticking their necks out and releasing 32 titles as Licenceware. Their prices are expected to be cheap, starting at £3.25. Call ☎ 01621 778778 for more details.

Are you a MUG?

If you are, then you'll be interested to know that OctaMED v6 is now available on CD, courtesy of the joint forces of RNF Software and Weird Science. As well as the latest version, the CD contains hundreds of modules and samples that have been uploaded on to the OctaMED User BBS. Buy the CD and you also receive the Get You Started manual. There is a special price offered to those registered with Med Users Group (MUG).

Also, if you keep your CD receipt, you will be offered a special upgrade price for OctaMED Soundstudio when it is released at the end of 1996. Call ☎ 01162 340682.

Northern lights

For those Amiga users up in the North East of Scotland (you are there, aren't you?), your area's Internet provider has moved premises. They now hope to offer an even better service, and can be contacted on ☎ 01224 595111 (general enquiries), or ☎ 01224 595222 (for technical enquiries).

Amiga links

Richard Martin is attempting to put together the definitive list of worldwide Amiga contacts. If you want your Internet site to be included, then E-mail him your details at: R.D.Martin-CSSE94 @cs.bham.ac.uk

All Greek to me

Worldwide support for the Amiga is continuing to grow with the formation of the Greek Amiga Club. The club supports Amiga users in Greece and Cyprus. They are looking for contributions from Amiga users and developers.

E-mail them at:
conem@prometheus.hol.gr

Exclusive reader offer

Amiga Shopper readers really do get all the best deals. And here's another one – Abcon Computer Services have put together some special prices exclusively for AS readers – so put the following list in front of your family and friends as a subtle hint of what you'd like in your Christmas stocking.

Phoenix Twin Black Refill Kit, RRP £8.99-£14.99, special price £7.99; Phoenix High Capacity Refill Kit, RRP £11.99-£19.99, special price £9.99; Phoenix Tri-Colour Kit, RRP £13.99-£24.99, special price £11.99; 60ml Cleaning Solution, RRP £5.99, special price £3.49; 60ml Head Recovery Fluid (HRF), RRP £7.99-£9.99, special price £5.99

All prices include postage and packing.



For details of what the kits include, call Abcon Computer Services ☎ 01708 751211 (be sure to say that you're an Amiga Shopper reader).

Sex on the net?

The inclusion of the complete issue three of our sister magazine .net on to their FutureNet site caused a sensation on the Internet. Issue three was a "virtual love" special, you see, which may explain the sudden escalation in accesses as soon as it appeared. When we discovered this, our site administrator suggested that we do a sex special issue too, which would increase interest in the Amiga Shopper pages!

But then we don't need such gratuitous frivolity, because FutureNet has been voted as one of the top 5 per cent of World Wide Web sites by Point Survey, a US-based independent rating and review service for Net users. FutureNet has grown so fast that it now has over 1 million accesses a week, which sets a new record for the Website.

If you want to see what all the fuss is about, just point your browser at:

http://www.futurenet.co.uk

Don't forget to have a look at the Amiga Shopper pages first.

AMOS makes a come-back

Good news for Amiga programmers – AMOS is about to be re-released. Its previous distributors, Europress, dropped AMOS back in 1994, but now Ultimate Software plan to take over distribution, with the first releases planned for January or February next year.

Ultimate had hoped for an earlier release, but as a relatively new business they have only just got things in motion. AMOS Pro will be the first to be re-released. On 11 disks, it will include a compiler, a dialogue procedure and an Easy Disk with examples for beginners (Easy AMOS will not be re-released because all the commands are on the Pro version anyway).

Anyone who buys AMOS from Ultimate, as well as those who are already registered, will be offered a 24-hour helpline and back-up service. "We want to give people the chance to continue to use AMOS," says Ultimate's Joe Jenkins. "It's an excellent tool. People tend to think of it as a bit of a shoot-em-up construction kit because when it was first advertised it was sold as a 'games creator', and that's why some companies are reluctant to publish software written in it. But it can do just about anything – it's powerful, and if you're proficient enough you can make very fast programs".

AMOS Pro will cost £25-£30. "We had hoped to make it cheaper, but the manuals are so expensive to print," says Joe.

The people behind Ultimate Software don't intend to make much money for themselves out of this project, because they have decided to run the company as a registered charity. However, they haven't decided which charity they want to support. That's where Amiga Shopper readers come in. Ultimate would like AMOS users to decide between three British charities: cot death support; computer training for underprivileged children or holidays for underprivileged kids. Choose the charity you would like them to support, write it on the back of a postcard and send it in to Amiga Shopper – we will pass all the cards on to Ultimate Software.

Ultimate are also looking for AMOS programmers to work on utilities and games, and are just completing Sword Of Honour, a karate beat-em-up due for release soon. For more details, ☎ 01703 338318.

The life and times of AMOS

For a programming language, AMOS has a rather interesting history. It was way back in 1986 when the first lines of STOS, for the Atari ST, were written, and over two years later before it was released by Mandarin Software.

By 1989, Francois Lionet began work on an Amiga version, and despite his conscription into the French army, he completed it in secret and AMOS v1.1 was launched on 12th June 1990. By August the same year, a manual and extra disks were added, and a month later AMOS 1.21 was launched with free updates made available in the Public Domain.

In March 1991, Lionet's military service ended, and was marked by the French version of AMOS being launched.

Then in 1992, Mandarin Software had a very busy year, publishing AMOS Compiler, AMOS 1.3, Easy AMOS and AMOS Professional, but all under their new name, Europress Software.

Since then AMOS has been used for programs such as Europress' MiniOffice Suite and Fun School range of educational software, as well as many games.

Name change

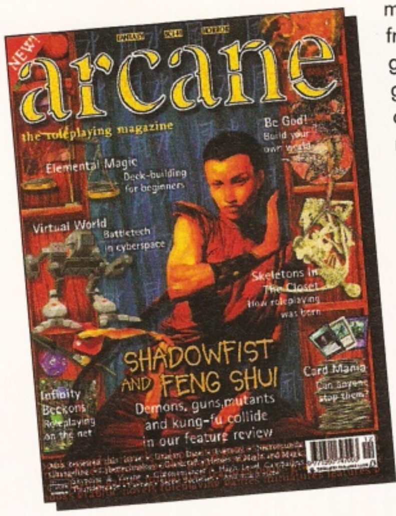
The Amiga Club, established six years ago, has now changed its name to Amiga Club International, since many of its members are overseas. The Club is part of the Amiga International User Groups Association, which is attempting to ensure members trade in "the spirit of PD".

Membership to the club costs £10 for the first year and £5 for subsequent years, with life membership available in the third year for £20. Members get PD at 40 pence for the first disk (if you supply the disk) and 15 pence per disk thereafter, or 80 pence for the first disk and 55 pence each thereafter if you don't supply the disk. There is also a bi-monthly news disk and disk of the month sent out, plus a number of extras sent out throughout the year.

Should you want to join, send a photocopy of this article with your order and the cost is reduced to £7 for the first year or £27 for lifetime membership.

New baby

The latest addition to Future Publishing's magazine empire is Arcane, a magazine which is devoted to role playing games. The mag will cover everything from traditional table-top games, collectible card games (which have kept our publisher out of mischief recently), computer games and the new interactive areas on the Internet.



The very first issue of Arcane will be on sale at the same time as this issue of Amiga Shopper, so get down to your local newsagent now!

Meet our sisters

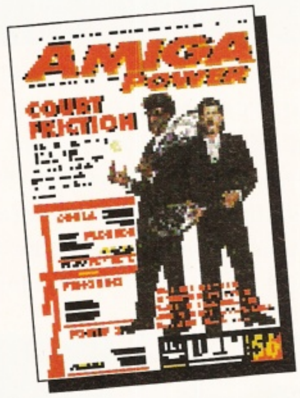
AMIGA FORMAT

Consider if you will, the insides of a turkey. For some reason, at Christmas time, a large number of these entirely innocent animals (and I have to point here that I am not, personally, a perpetrator of this particular barbarity) have their insides removed, and replaced with something else entirely, prior to being bunged in an oven and having the bejaysus roasted out of them.

The link between this act and the next issue of AF is tenuous in the extreme, but basically, our Christmas issue will be stuffed with games, serious products, PD, Gallery, your letters, tremendous buying guides, insights into Amiga Technologies and an interesting feature on Amiga astronomy. It's a cracker (sorry).

Amiga Format Christmas issue on sale Thursday, 23rd November.

Nick Veitch, Editor



Step into the cosy parlour of December's AMIGA POWER and squash games into your foul maw like so many iced gems. Super Tennis Champs, the pet-neglectingly fabulous four-player tennis game pours a lemon tea for Coala, the cantankerous helicopter sim, while Citadel, yet another Doom clone, nibbles reflectively on a biscuit. Sensi wannabe Team clatters out a tune on the corner upright, and Thomas The Tank Engine Pinball hovers by the netty windows, wary of the police.

December's AMIGA POWER, on sale Thursday, 16th November – it's like that house in The Ladykillers, except with fewer amusingly ghastly deaths.

An Editor, AMIGA POWER

Warning: speed tricksters on the prowl

According to our chums at Almathera, there's some dodgy dealing going on in the Amiga world, so listen up because it might affect you.

At least one Amiga accelerator card manufacturer seems to be overclocking their accelerator cards (mostly for the A1200 and some for the A2000). That is, they are running the CPU on the accelerator card beyond the speed that it was designed to operate.

In the past, this has been done to generate systems that run faster than normal, but it is now being done to cut corners and make cheaper accelerator cards.

The potential problems this can cause are that your system will be unreliable, and while it may appear to be functioning normally, system crashes and incompatibilities are far more likely.

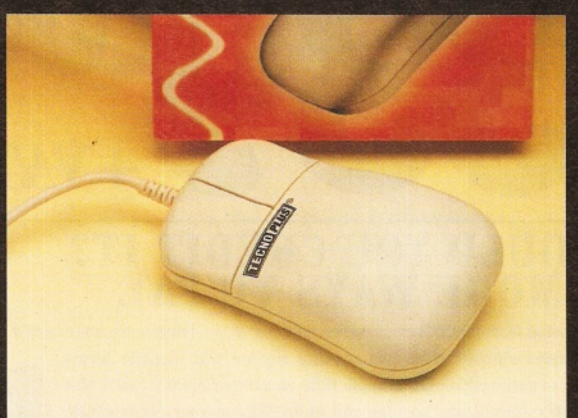
Also, because overclocked CPU chips run hotter than normal chips, it is certain to reduce the life of the chip.

Here's how to make sure you're not caught out. You need to check that the speed rating on the chip is not less than the claimed speed of the accelerator card. For example, the 68030 CPU should be marked with a speed in the form of a dash, followed by a number, -33, -4-, -50, and so on. If this does not match the speed claimed for the card, or if the label on the CPU has been scrubbed off or covered with a sticker, you should return the board to wherever you bought it from. If you have trouble changing it, then consider contacting your local trading standards office.

Please note: Almathera are not connected in any way with the manufacture or distribution of accelerator cards.

Of mice and Amigas

TechnoPlus has brought out a new Amiga mouse (see pic). Featuring two buttons, it is fully microswitched and incorporates an opto mechanical mechanism (whatever that means). And you can be the proud owner of this new mouse for £14.99. ☎ 01604 768711.



Another mousey story: If you thought that all Amiga mice were exactly the same, then think again. This mouse looks like a pen and according to its distributors, Golden Image Ltd, it is ideal for CAD/CAM applications. You use it in the same way as a conventional mouse and it works at 250dpi. Available now, it costs £19.95. ☎ 0181 900 9291.

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Virus killer



Computer viruses are no joke and what seems to be a game for some can have devastating effects on other people's precious data. **David Taylor** *examines this unpleasant phenomenon and speaks to two of the people leading the fight against viruses on the Amiga.*



So what exactly are these viruses that we are all so scared of and do they deserve the fear they create? Is there anything you can do to avoid them or get rid of them? Who writes them and why? What's the point of these questions? Well, the point is that they are all worth considering, because although we like to think viruses are less prevalent now than before, they are still a very real threat.

A computer virus is simply a small program that has two purposes. Firstly, it is supposed to replicate itself and spread itself as far as possible. With that achieved, it activates itself and then does whatever it is coded to do. That can be anything from flash an annoying message on the screen to the much more serious destruction of data. Of course, it is also supposed to remain undetected by the user until it activates so that it can spread itself.

Infectious disease

A typical virus, for example, could be programmed to copy itself from floppy disk to floppy disk and then after each copy of the virus has copied itself a further 20 times, it would wipe out the data on the disk. By the time you find out that your first disk has wiped itself, you could easily have unwittingly infected every other disk in your collection.

Although viruses aren't everywhere, they do exist (believe me, I'm speaking from experience). In the wider world, computer viruses have made front page news. Back in 1992, the Michaelangelo virus hit the world's computers. Set to detonate, for want of a better word, on 6th March, the anniversary of the famous painter's birthday, it caused havoc. Although Scotland Yard (oh yes, computer viruses are considered that seriously – so don't think about writing one unless you're into sewing mail bags), had managed to forewarn people and saved millions of pounds of damage, there were an estimated 120 companies hit in Britain alone and thousands of pounds worth of data was lost. A lot of people had virus detectors running on their system and wrongly assumed they'd be safe. The problem was that many detection programs had not been updated regularly and, being out of date, offered no protection, which highlights the need for always having the latest version available.

Earlier this year, Christopher Pile became the first person to be charged under the Computers Misuse Act for spreading a virus. This underlines the fact that these small pieces of code have made the jump from juvenile prank to serious crime. In fact, there have even been cases where software programmers have been tried for blackmail after threatening to unleash a virus on a company system.

One of the more worrying virus incidents occurred back in 1993 when the Yankee virus

infected the Sizewell B nuclear power station. Being one of the most advanced power stations, it relies heavily on computer control in case of an incident (although there is a mechanical back-up), but thankfully the problem was confined to the administrative computers!

It's life, Jim

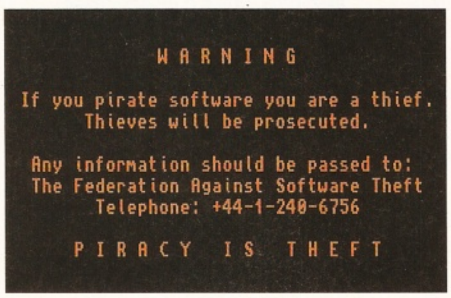
What may strike you as even more unusual, given all this negativity, is that Steven Hawking, author of the best-seller A Brief History Of Time, has suggested that computer viruses should be considered as a form of life since they fit into the definition. The similarity between them and real viruses are apparent and of course behind the fact that we call them viruses. Like the 'real thing' they find a host and reproduce. Cited in The Times, he said "It says something about human nature that the only form of life we have created so far is purely destructive. We've created life in our own image."

Retribution

Some virus programmers take advantage of people's use of pirated software by releasing fake archives which really contains viruses. Attaching them to games is a simple way for viruses to be spread not only through home computers, but also on to office machines by naughty employees who play games at work. If you're dismissing this as something that happens only to PC users, think again. The $4eb9 link virus on the Amiga has been used to create fake archives of programs such as LZX and Directory Opus. So think on, next time you "save money" by getting pirated software, you might get more than you expect.

To some people, this type of virus might seem like poetic justice, but viruses have also been used to try and enforce certain moral beliefs. A virus has been released and included in archives that contain pornographic material. The kaos4 virus, dubbed Electronic VD, would then infect and destroy any other files on the drive. This virus attacked a collection called Sexotica and lost one user 725 of his files.

As you might have guessed, this does mean that floppy disks are by no means the only way of transmitting viruses. When they were restricted to floppy disks, one of the dangers of using the DMS archiver was that it stored the entire disk structure and was therefore capable of transmitting bootblock viruses. Nowadays



Pirated software is an ideal way for virus programmers to spread viruses. Be warned.

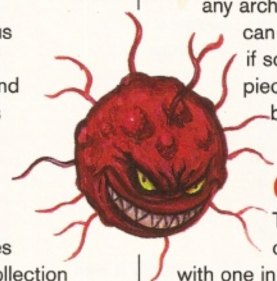
Hints for safety

- **When you get a new disk, check it with a new virus checking program, whatever the disk's source.**
- **When you reset the machine, especially with new disks, remember that only by switching the machine off for 30 seconds or more will you fully clear the memory of any potential viruses.**
- **Keep your disks write-protected. A virus cannot write to a write-protected disk and infection is impossible.**
- **Having a virus checker running all the time will help you find any viruses before they can do any harm.**
- **Be careful when downloading archives – viruses can be included. Try using a program that can check archives (like Virus Checker) and packed files (like Antivirus).**
- **Avoid the temptation of pirated software – some versions are merely fakes which are used to spread link viruses.**



Companies were warned about the Michaelangelo virus, but it still wreaked havoc.

though, it is equally possible for viruses to be written into other programs and transmitted in any archive form – which means that they can be downloaded. Look at it this way, if someone is good enough to "crack" a piece of software, they're also likely to be able to code a virus.

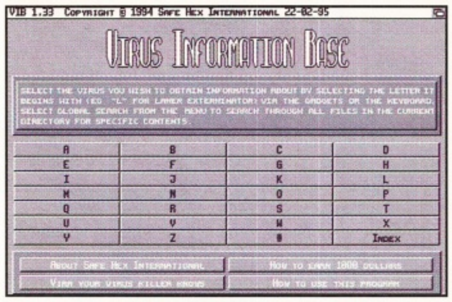


Organised crime

To top it off, there are now secret organisations of virus programmers, with one in Britain calling itself (rather attractively) the Association Of Really Cruel Viruses. Whilst some viruses are harmless and others at least have some element of humour – there are rumours of one that puts up a show-reel of hard-core pornographic images to keep the user interested whilst it in fact wipes the hard drive (an urban myth probably, but amusing nonetheless) – the majority of viruses are simply malicious and destructive.

Strange that anyone finds pleasure in creating something that can only be harmful – are virus programmers out to get revenge on the cruel, harsh world that so callously laughed at their spotty faces?

Erik Sørensen of Safe Hex International, the association that is behind perhaps the most organised fight against viruses on the Amiga, thinks so: "I think that viruses are written by young school-boys who in some strange way want to show the world how clever they are. In most cases these boys have personal problems in school or with girls."



The Virus Information Base is the source of information on Amiga viruses.

Practice Safe Hex

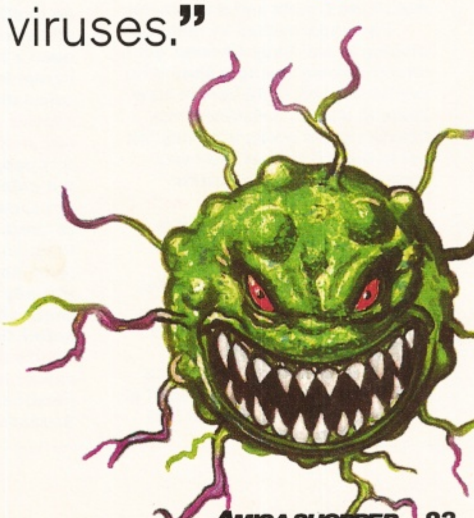
Safe Hex International started in 1987 and has grown today to be one of the best guardians of our Amigas. Within days of a new virus appearing on the Amiga, it's likely that one of SHI's members will have a virus killer for it out. SHI is run on a non-profit basis and nowadays has more than 35 "Virus Centres" around the world. Part of their global fight against viruses has led them to set up BBSs in different countries where people can get the new virus killers. They have also developed a set of anti-virus libraries so that programmer's themselves can write virus protection into their programs.

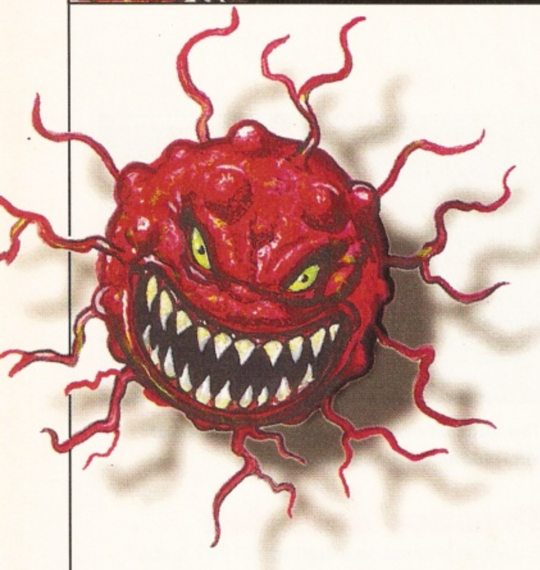
You might wonder why SHI's members bother helping for little or no reward. Erik says "I got involved with virus checkers when one of the very first Amiga viruses named SCA arrived in 1987. Nearly all my own disks were infected and I began to investigate what had happened and how I could protect myself in the future.

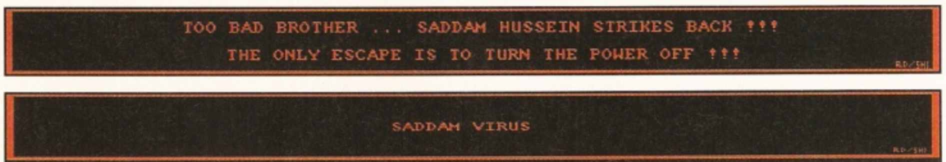
"Within a few months I had collected a couple of different viruses and started to build up my virus library to support programmers of new and improved virus killers. Today I have collected about 1,800 PC and Amiga viruses."

The big question is, of course, how dangerous are the viruses and what exactly do ▶ 24

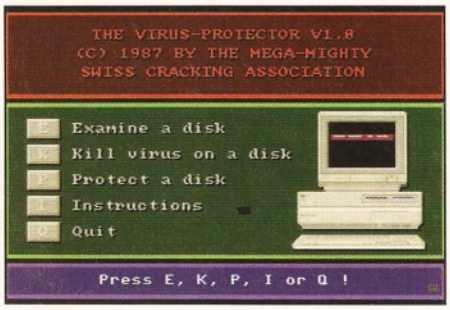
> "Floppy disks are by no means the only way of **transmitting** viruses."







The Saddam virus had two strains and was a particularly nasty piece of work.



The first Amiga virus killer for the first Amiga virus – both written by the same group!

they do? "A typical Amiga virus hides itself and does not normally do any harm in the beginning, when you are first infected, because this way they have the best conditions to spread themselves worldwide.

"Contrary to the early years, most of today's viruses are spread by modem, so don't try to download the newest programs from a BBS, but wait a few days if you want to be safe.

"When they activate themselves, the worst viruses are those that format your hard disk or overwrite your rigid disk block. With these, you cannot repair your disk if you are infected and have to install all new programs."



With such a lot at stake, it's not surprising that new killers are brought out so soon, because stopping the spread of a virus is essential. However, such an efficient response to virus threats makes you wonder exactly what virus programmers hope to achieve. "Today there are about 5-10 new viruses or trojans arriving every month. I don't think that virus programmers think that they can make a virus that we anti-virus programmers can't find. These guys have only a couple of days before we've updated our virus killers.

"However, you can't put an end to the threat of viruses for the future. The only way is to use the newest virus killers every time you get new programs and hope for the best."

Mostly harmless

Viruses that are transmitted by disks tend to work by installing themselves to the bootblock of the disk. There they sit, copying themselves from disk to disk as you swap disks. Even resetting your machine is not adequate protection, because some viruses can remain in memory between warm resets and can still infect new disks. This is the reason why you

Interview with a virus checker

Virus Checker is one of the Amiga's most popular anti-virus programs. We asked its author, John Veldthuis, to spare us some of his time.

Could you give us some general information about yourself?

Well, let's see. I'm 35 years old and live in a rural town in New Zealand. Nice and quiet. My real job is as a supervisor in a cheese factory that produces 12 tonnes of cheese per hour. It takes up a fair whack of my time!

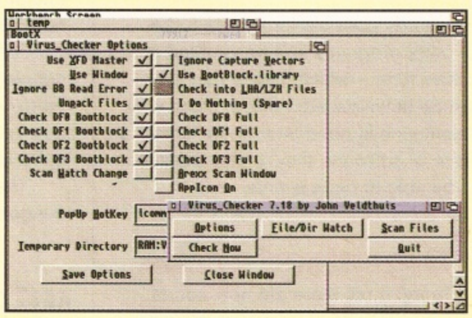
How did you get involved with virus checkers?

I originally started to learn how to program the Amiga in Assembly. I got the source code to Steve Tibbet's VirusX and thought I would learn Assembly and C at the same time. I translated the code into Assembly and found the program to be about a third of the size of the C code and much faster.

I was approached by someone wishing to sell Virus Checker but I turned it down saying it should be available to all. CBM here in New Zealand started including Virus Checker in the packs that they put out in the NZ market and I was soon getting plenty of letters.

What does a typical virus "do"?

It depends on the programmer. Some do nothing and are just meant to spread. The first SCA bootblock virus was supposed to do this and put up a message. However, due to it copying over the bootblock of disks, a developer lost a big portion of a game that was being developed at the time. Some are there to just cause as much damage as possible before the user can stop it.



Virus Checker has just been overhauled and updated with a new interface.

Who do you think writes viruses and why?

Most of them are probably guys who can't write real programs. Until recently the viruses have been very poorly programmed. They're easy to spot, don't work on multiple machines, hardcoded addresses etc. Recently there have been a few viruses that are much harder to decode and require calculations to decrypt them.

Explain a bit about viruses transmitted via modems.

It is possible to download them but unless they are run they will not cause any problems. It is best to check all files before running them no matter where they come from. Aminet is very good and virtually virus free. The guys there check all the files for viruses before they make them available.

What's the worst virus you've encountered?

Personally it would have been the Saddam. It is the only virus ever to infect my machine. Luckily it was very easy to remove and fix the problems. It was because you did not actually have to run the program to get infected. In 1.3 KickStart the disk-validator was read from disk. If the disk was not validated then the validator was read in from the disk that was wrong. Thus it sucked the virus straight in.

Virus "programmers" write new viruses to outwit existing virus checkers. The checkers are then updated to fight them. Do you think virus programmers see it as some sort of game?

Possibly. Some do it for revenge, some to stop development of software. The AMIRC that was infected with the Illegal Access virus was an attempt to get someone to work on an IRC program that did not use MUI.

People seem to think that the dangers of infection are less now than before. Are there many new viruses appearing nowadays?

There are always new viruses appearing. For a while it slowed down but then it picked up again. Quite a few are the Circle Of Power trojans. These claim to be new releases of known software and thus pirates especially go for them. They are in fact old versions with some code hacked into them to delete files.

Do you think that we will ever see a time when viruses are no longer a constant threat, or is this something that will never go away?

Viruses will always be present. There is no way of getting around that. The Amiga lasted quite a while before the first one appeared but then after that they started coming out faster and faster. All computers have a virus for them. Where there is a computer there will always be a virus for it.

Is there anything you want to add?

Maybe just a hint. In the latest release of Virus Checker, I programmed the GUI to use gadtools.library. It looked much better but was not 100 per cent perfect. I was looking at MUI but was put off from the negative feedback of the suggestion.

What I am doing now is looking at using BGUI.library. This is a 100K library that makes things look very nice. I have done the main window and added things like context-sensitive help and the file is still the same size as when this stuff was not in it.

Anyway, it may take a while because my beta tester will be testing it out first.

should turn off your computer for at least 30 seconds between loading disks so that all the sectors of RAM are cleared.

The SCA virus, mentioned by Erik Sørensen, was the first Amiga virus and as such is nowadays considered harmless. It patches itself to the Cool-vector so that it remains resident in memory after a warm reset and then uses the DoIO()-Vector to infect other disks. It simply overwrites the bootblock, which can be fixed by re-installing the disk. This only works with AmigaDOS disks though, because non-DOS games disks have a custom bootblock and if that is destroyed, the disk is useless.

Byte Bandit is perhaps one of the most well-known Amiga viruses. Like most viruses, it requires two blocks (0,1) or 1,024 bytes and remains resident in memory, copying itself to new disks. As one of the infamous viruses, Byte Bandit has been cloned many times. It stops your computer working, but like the SCA virus it is largely harmless and for AmigaDOS disks is solved by re-installing the disk.

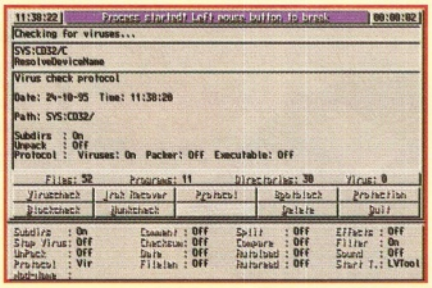
Antivirus

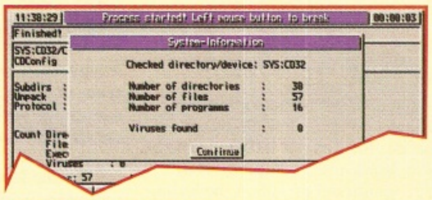
There is also a commercial virus package available called Antivirus. Like BootX it is launched as an application and can be used to scan disks, blocks and files for all types of viruses. The software isn't entirely easy to use, but the manual details all the features well enough and a quick read will sort out any problems. The program can compile lists of file lengths and checksum values so as to make the likelihood of a link virus attaching itself to your programs without you being able to spot it minimal.

It also allows you to save bootblocks, so that should a disk become infected, you'll be able to restore the disk, even if it were a non-DOS game disk.

The authors are hoping to keep the program up to date with brainfiles available for download from various official BBSs.
It is a very thorough program that can check for a huge number of viruses, which does alleviate your fears.

With such competent Shareware virus programs around, it is perhaps surprising to see a commercial offering, but it compares well, because registering Shareware virus programs is essential – you can't do without any features, and isn't too pricey. Blatant self-promotion time, because you can actually obtain Antivirus from Amiga Shopper's mail order service and save £5 from the RRP, or even more if you're an AS subscriber. See page 70 for more details.







Antivirus checks a directory (above) and reports no viruses (below). Thank heavens.

Antivirus

Price: £34.99
Supplier: AS mail order
Contact: 01225 822511
Verdict: 80%

Killing ground

Not all viruses are so harmless, however. In 1991, a new type of virus appeared, known as the Saddam virus. This virus pretends to be the disk-validator, which is a part of the Workbench 1.3 software, used for (wait for it) validating disks. If the virus doesn't find the disk-validator file, it creates one and sits there. When activated, it overwrites data with "IRAK" and sets the disk's bitmap to "not valid". Your mouse pointer disappears and the Saddam virus screen appears. This was a nasty virus that caused some problems and proved once again that viruses are a danger. The virus checkers worked hard on a solution and nowadays most checkers can scan for Saddam damage and repair as much as possible.



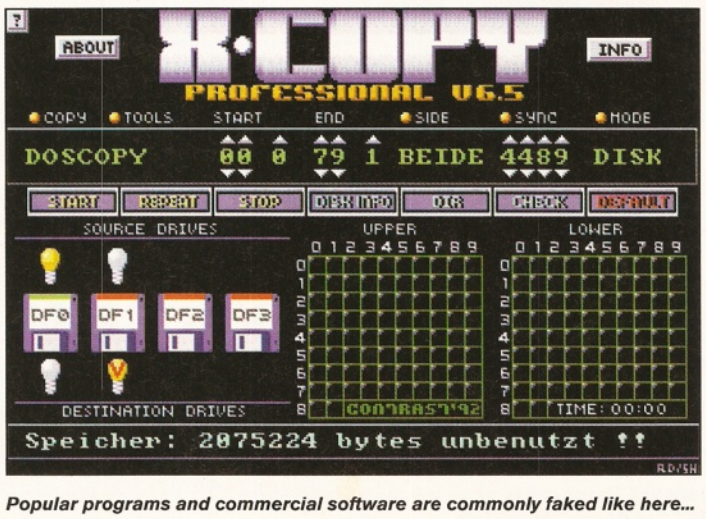
More recently problems have arisen with the $4eb9_linker which is hardly a scary name, but has caused real problems. It can link programs with virus installers and so has led to fake archives and programs being released which are in reality just a way of spreading a virus. These link viruses normally attach themselves to the first code hunk of a program and execute themselves before running the real program so as to allow themselves to spread. As said earlier, software pirates may easily get more than they bargained for. There are quite a few of these "bombs" around, written as fakes of real programs.

The number of this type of viruses is always on the increase, but well-known programs that have been hijacked include: Directory Opus 5, Personal Paint 6, Cygnus Ed, X-Copy, NComm 3 and Protracker. Most forms of archiver and packer have been faked, as have some Virus Checkers.

The X-Copy fake, for instance, writes an additional two files to the disk it copies, a modified "mount" command in the C: directory and a file called "d" which contains the virus. Then, when the new disk is booted, the virus is activated, causing checksum errors all across the disk. Using disk salvaging programs, it is possible to salvage some of the data, but it's a long and not entirely successful process.

Obviously, the latter form of virus doesn't rely on writing to the bootblock of the disk immediately and as an integrated part of a program can be transmitted by modem. Another way virus programmers do this is to place a false file in an archive, such as a bogus library, which is copied to the disk when the program is installed and will proceed to destroy data when run by the program.

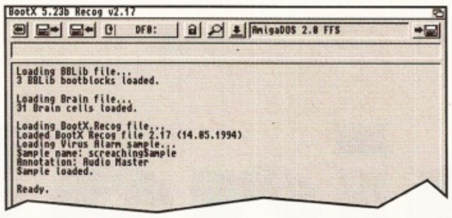
Many of these viruses are not restricted to floppy disks and can cause exactly the same damage to hard drives, resulting in even greater loss of data. For more details on specific Amiga ▶ 27



Popular programs and commercial software are commonly faked like here...



...and here. Fake disk copiers are ideal ways of spreading a virus.

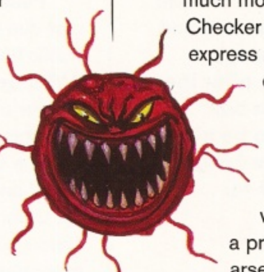


BootX, like other virus checkers, offers superb protection from the rogue code.

viruses, what they do and how to cure them read the VIB program that is in the special Virus Protection Zone on this month's Coverdisk (see page 10).

Save me

So, is the end of the world nigh? Can we do nothing to halt the march of these nasty nibblers? Calm down. All is not lost. There are quite a few virus checkers and killers around. In fact there's one of the best ones on our Coverdisk (see page 10).



Virus Checker has been around for years and has grown with the passage of time. It's not only constantly updated for any new viruses appearing, but the program itself has been refined. In fact the latest version that you will find on this month's disk has been completely overhauled with a brand new interface.

Virus Checker requires installing to your system. If you have trouble installing an update, it is likely that the earlier version has protected the anti-virus libraries from deletion (for obvious reasons), and you should change the protection bits on the files (see your Workbench manuals for details on how to do this). Virus Checker can be inserted in your StartUp so that it sits silently and invisibly monitoring your system and disks every time you boot up. The advantage of this is that you don't have to worry about it at all and the only time you'll know it's there is when it appears to tell you it's found a virus, a suspect file or an unknown bootblock. When any of these are found, you'll be offered the chance to remove the virus and stop the danger.

Virus Checker can also scan for Saddam damage. There are options to make Virus Checker ignore certain strange blocks – which is really for those who insert PC formatted disks into their drives, because this would normally have Virus Checker informing you of an unreadable bootblock, even though there's no error. Virus Checker is now Shareware and registered users get several advantages, such as the ability to have archives – packed with LHA or LZX – scanned for viruses. This can help you avoid de-archiving a virus by mistake, so registering is very important.

Another excellent and thoroughly professional package is BootX. This program has an interface that may leave a little to be desired, but with a constantly updated recognition file, it is rated very highly, although it can only check floppy disks. This program works much more like an application than Virus Checker and is loaded by you for the express purpose of checking disks. It is easy to use and can be made to scan disks and mend any infected blocks. I had only one slight problem where it thought it had found an infected block that wasn't at all; but hitch aside, this is a program worth having in your arsenal. You should be able to get it from most PD Houses (see the listing on our Coverdisks), but check that they have the latest recognition file. In addition, it can be obtained from Aminet or from Amiga Shopper's own FTP site at: http://www.futurenet.co.uk/computing/amigashopper.html

Other programs that are worth considering are the commercial Antivirus (see boxout on page 25), and Virus Info Base, a database that details many viruses and how to cure them – it can be found on this month's Coverdisk. It's also a good idea to have a program that can store custom bootblocks (of which many in the PD can, as can Anitvirus), so that should a games disk be infected, you can re-install it.

If none of the programs here suit you, there are still many others that you can look at, but make sure you obtain them from a reputable source, since there's nothing a virus programmer likes to do more than spread their virus through a fake checker.

Last words

If you follow the tips on these pages and use the programs suggested to protect yourself, then you significantly reduce the chances of losing out to viruses. I must underline that prevention is best. There are viruses that can destroy data and allow no retrieval – when it's gone, it's gone.

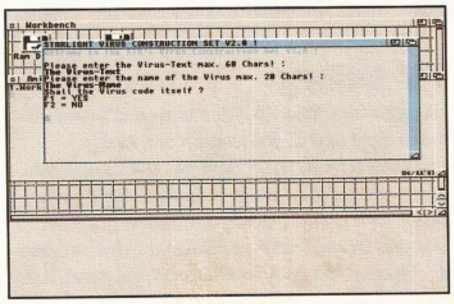
I'd like to stress that the link viruses, where real programs are used, refer only to bogus archives. The real programs, bought commercially aren't infected – pirating software is what enables the spread of these viruses.

However, at the end of it all, trust nobody. Test every disk. ■

Don't panic!

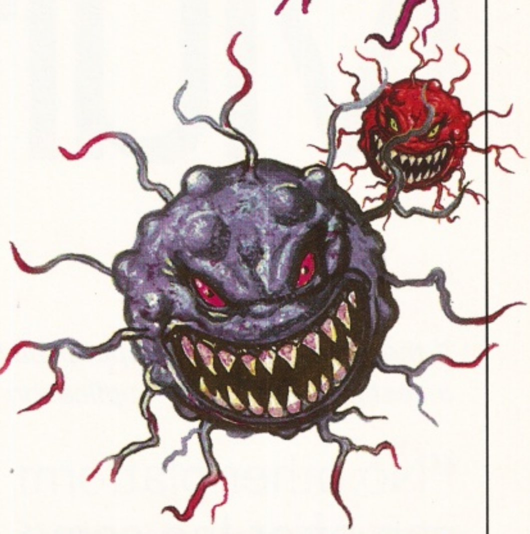
As long as you are sensible, the risk of infection is not too great. You don't have to live in fear every second of the day. If you do get a virus, treat it immediately.

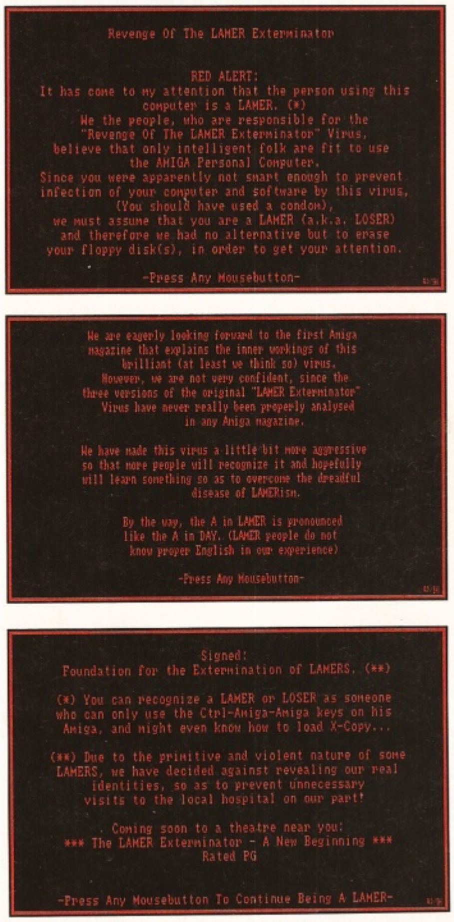
Finally, if you know a virus programmer, you could get a reward – see the information about SHI in the VIB program.



Oh, a virus construction kit. How amusing. Now we can all wreck our machines.







Virus programmers think that beginners shouldn't be allowed on Amigas. How mature.

Multi Amiga!

If there was ever a computer built with multimedia in mind, it was the Amiga. **John Kennedy** *investigates the killer application that has been a secret for too long.*

"No other platform can offer the same **facilities** as an "out of the box" Amiga 1200."



The CDTV had the potential to be the multimedia event of the decade.

Multimedia is the buzzword that had to move over when the Internet became hot property: but it's still incredibly important and potentially the saviour of the Amiga. Certainly no other platform can offer the same facilities as an "out of the box" Amiga A1200. You don't have to be a genius to appreciate the unique Amiga features which makes it perfect for multimedia applications:

- Low hardware cost
- Reasonable processing power
- High resolution colour graphics
- Ease of scrolling and colour manipulation
- Video output which is perfect for display on low-cost monitors
- Graphics easily recorded on to video tape
- A multitude of cheap genlock hardware
- Built-in four-channel sound
- Many graphics, sound and authoring packages available
- Wide acceptance of standard file formats for graphics and sound
- Ease of expansion (memory, processor, hard drive, CD-ROM drives)

It is a list of features which could have been specified at the design stage for the ultimate multimedia engine. It's therefore no surprise that rumours abound of Amiga hardware being licensed for use in set-top boxes. Tracking down the ex-employees of the old Commodore company also leads to the door of major multimedia players.

The Amiga 3000, marketed as a multimedia authoring platform, came bundled with the AmigaVision authoring system. Sadly the high price and lack of understanding on behalf of potential customers robbed the Amiga of the best opportunity it had. Or at least, the second best opportunity, because the CDTV could have been the multimedia event of the decade.

The CDTV was the power of an Amiga encased in a smart black video recorder-style box with a CD-ROM drive. It came at exactly the right time to seriously worry companies like Philips with the CDi, but bizarre marketing policies meant that it was never as successful as it deserved to be. You only need to see The Heroic Age Of Spaceflight or Trivial Pursuit to see the potential that this ultra-smart Amiga had in abundance.

Perhaps the relative lack of success was in part due to the fact that most members of the public had no-one to answer the question: "What exactly is multimedia?". The standard answer of a muttered "Well, you know, everything", didn't do much to boost sales.

The CD^{32} was a re-worked version of the CDTV and kept the costs down and fun-factor up. Unfortunately, it seemed to lack the gee-whiz appeal necessary to make it stand out in the ever more crowded console market.

Interestingly, in the last few months the PC seems to have reached the stage that the Amiga was at all those years ago. Olivetti have launched their Envision system which consists of a smart black video recorder-style box with the guts of a Pentium PC and CD-ROM drive built in. Best of luck, guys...

But what is multimedia?

Multimedia is, well, you know, everything. It's text, it's pictures, it is sound all mixed up with a dose of animation and perhaps even some moving video footage, all nicely presented and made to look as easy to use as possible. Or something like that.

It's probably easiest to give a definition in the form of some example multimedia projects. You could create all the following examples using a standard A1200 and perhaps a little extra hardware. You'll need some software, but depending on exactly what your needs are this could cost as little as £40. Remember, you could be creating all these applications today on your Amiga.

TV titling

Because the Amiga's video output is standard video-style signal, you can record Amiga graphics directly to video tape. The complexity of the image you record is limited only by your talent as a graphic designer. With a program such as Deluxe Paint or Personal Paint you can easily come up with titles that are as good, if not better, than the majority you will see on television. Both these paint packages also support animation, so there is no need to stick

to static images. Make your titles zoom into the screen, fade out and in, or scroll off the top.

As for hardware, all you need is a suitable lead to connect the Amiga's video output to the back of the video recorder. If you want to overlay the Amiga graphics on top of another source (for example, you want to add subtitles to your holiday video), you will also need a piece of hardware called a genlock. A genlock will cost about £100 but will offer various controls such as fading. Some will also mix external sounds under software control.

Interactive disk projects

Ever seen a computer application running which looks like a copy of an encyclopedia, complete with pictures, text and sound? Or seen a disk-based magazine which provides illustrated articles for you to read on-screen?

Creating your own interactive system like this is easy, once you have the right software authoring tools. Create graphics in a paint program and sample your own sounds with a cheap cartridge. Combining both is simple and satisfying: how about creating an interactive cookery book, or story book for your children?

World Wide Web



The World Wide Web is one of the most interesting multimedia applications at the moment. Pages are constructed from pictures and text using a simple set of 'tag' codes in a plain text file. Users view the pages in a browser program such as AMosaic, which pulls the files from over the Internet. Certain words appear in a highlighted form, and when selected new pages are downloaded and displayed.



The Amiga is a great machine for authoring these pages, because there are lots of graphics manipulation tools around and some excellent text editors. You don't need Internet access either: Web pages can be stored on disk like any other file. This means you can use the HTML language to author your own applications: it's like AmigaGuide but easier to use and with much better graphics support.

DIY programs

If you want to be a programmer, but don't want to waste a high percentage of your life learning about C compilers, object file linkers or BASIC interpreters the Amiga is the machine for you. A multimedia authoring system such as Helm or CanDo can be used on two levels: either as a way of combining graphics, sound and other elements, or as a "visual object-orientated" programming language. You may hear PC owners rant about Visual Basic, but CanDo on the Amiga is just as good, if not better.

You can even create games (OK, so no Ridge Racer clones, but it's a start) and more serious applications and never have to write a line of C or BASIC.

Demos

The demo scene on the Amiga is still strong and vibrant. You might not produce programs as good as the latest frankly impossibly impressive demos, but you will be able to combine animations and sound. Create a cartoon in Deluxe Paint and then add a soundtrack before releasing a disk into the Public Domain, or recording it all on video tape and winning an Emmy award. On the Amiga, this kind of project is so easy you'll wonder why you haven't been doing it for years.

Presentations

Got a job interview coming up? Do yourself a favour and find out if there is an overhead projector or a video recorder available. With an Amiga you can wow the stony-faced panel and guarantee yourself a job. What's more, when the MD shakes your hand and asks you what sort of PC you used and how much you paid the production company, you can say: "I did it all on the Amiga myself." (To which the MD will invariably ask "What sort of PC is an Omega? Isn't that a games machine?" Console yourself with the knowledge that in a year or so you can have him sacked.)

A multimedia authoring program is perfect for creating smart-looking slides describing your talents and how much sales will rise when you assume control. You can either save the IFF images and print them on overhead projector film, or try your hand at making a full-blown video. A good video CV will always appear more impressive than two sheets of A4 listing your GCSEs. Ask yourself which is going to impress a video graphics company more.

You might also use the Amiga to go into business: create a smart presentation and sell it to local shops to place in their shop windows. Estate agents, car salesrooms, local supermarkets – it could be a lucrative new business. Remember to send your bank manager your business plan on video too.

Training

Many multimedia systems offer a degree of interactivity. The user can select a button from on screen, either with the keyboard, a joystick or a touch screen.

If you are involved with training people you'll know the benefits of letting them try things for themselves rather than listen to someone else talking about it.

> "With an Amiga you can **wow** the stony-faced panel and guarantee yourself a job."



The CD32 is so much more than just a games console. It is the ultimate multimedia machine.





Recommended hardware for multimedia authoring

Hard drive:
Loads of images and sound files take up a lot of memory. You need a way to store them and quickly retrieve them when needed, and a hard drive (or a Zip drive) is essential.

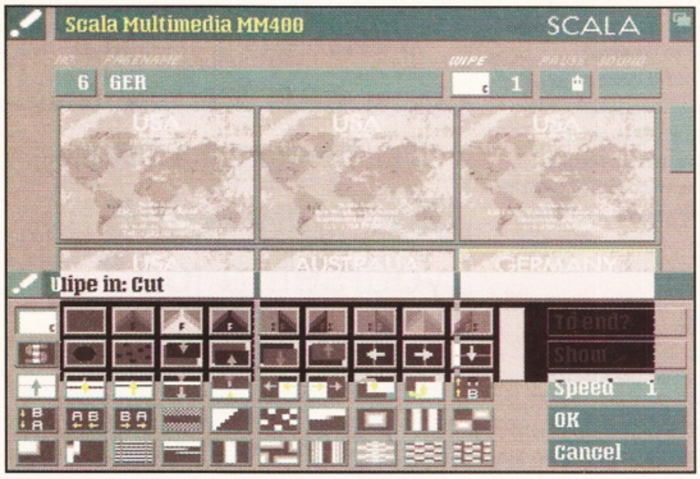
CD-ROM drive:
With so many CD-ROMs available for peanuts, all crammed with images and sounds, it is daft not to take advantage of them. With a CD-ROM drive you can also load PhotoCD disks.

Extra memory:
If you want to speed up your animations, or create lengthier projects, get an extra 4Mb of RAM. It doesn't matter how much memory you currently have: an extra 4Mb is always useful. Repeat until you run out of money, or SIMM slots.

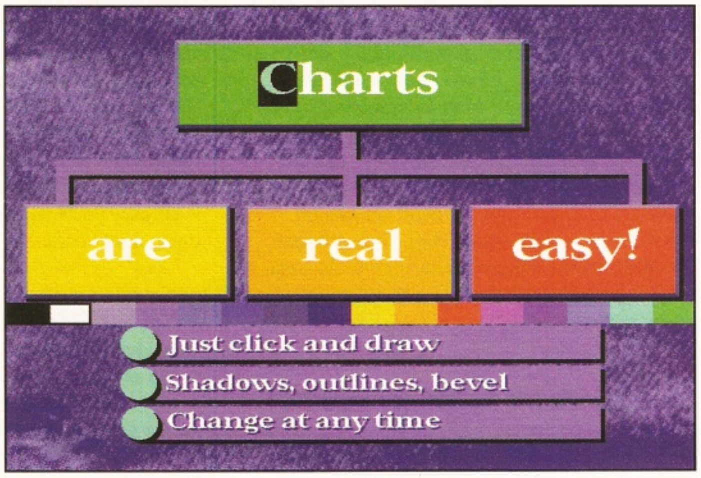
Hand scanner/digitiser:
Create your own graphics the easy way: scan them in or digitise them from video.

Genlock:
With a genlock you can overlay titles on "live" video, but some models are software controlled (the GVP thingy) for example, which makes them much more useful.

Sound sampler:
Adding your own effects or commentary will lift your project from the mundane.



Scala MM400's new "shuffler" feature enables you to see your list of actions in graphical form. (See Scala MM400 review on page 32.)



Imagine a business presentation with smoothly-scrolling charts and a funky sound-track. As soon as portable Amigas appear you can imagine it and do it.

"One of the **best** places for material is the Public Domain."



Creating training systems based on the Amiga could be the best thing to happen in the classroom: you can fine-tune the system to suit the needs exactly. Why not approach your local school to see if they would be interested in you writing such a system for them? If successful, you could start selling the program to other schools and keen parents.

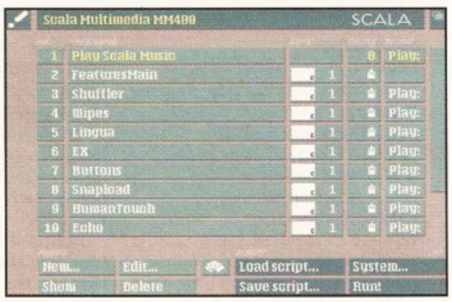
Sourcing material

As multimedia literally means "all forms of media", a good project will use as many forms as possible. From the background textures over which text is displayed, to the images of buttons and the background music: everything needs to be created somehow.

Many of the authoring systems you can buy will come with enough stock images and sounds to keep you going at least to start with. You'll often find the examples provided will keep you in buttons, bleeps and textures but eventually you will need to obtain some original work for yourself.

Drawing button images is usually not too hard: as long as you make them obvious (keep obscure icons to a minimum if possible) and large enough to use, you won't go wrong. Many systems allow you to make the buttons appear to click into the screen, accompanied by a sound effect: it's features like this that makes a good application stand out from a mediocre one.

If you are lucky enough to be a talented artist and musician you will be in a hurry to load up your paint program and OctaMED or Music-X to create your own material. The rest of us will have to cheat. One of the best places for material is the Public Domain: you will find many libraries selling disks of clipart, background textures and fonts very cheaply. Even better, there are now many CD-ROMs available. A typical CD-ROM costs about £20 and yet contains hundreds of megabytes of images: one disk alone can make it worth buying a CD-ROM drive.



Scala works on a script basis: each line in the script triggers an action.

Sound and vision

If you are creating a project for a specific purpose – perhaps a presentation or an advertising display – you will need a method of getting images into a suitable format. The cheapest way, if you already have a CD-ROM drive, is to make use of the PhotoCD system. Take photographs of whatever it is you need in digital form, and bring the unexposed film to your local chemist. They will send the film off, and eventually you will receive a set of prints and a shiny gold disk. The disk is a CD-ROM that contains the images scanned in breathtaking detail in a variety of formats. Several Amiga programs are available that will convert the PhotoCD images into standard IFF files that you can process and include in your project.



The problem with PhotoCD is that it's not quick (expect to wait for a week or longer for the pictures to come back) and you need a CD-ROM drive to read the images. A more immediate solution is to use a desktop or hand scanner and digitise the photographs yourself. See AS52 for a comprehensive round-up of scanners, but expect to pay about £100 upwards. Flatbeds give the best results, but cost a lot.

If you have a camcorder you should also consider a video digitiser. The advantage of the video digitiser is that you don't need to photograph your subject first: go out and film them, or stick them in front of your camera. A digitiser such as the Vidi12 (£65) or ProGrab (£125) will produce a very clean IFF grab from a good quality video image. You can also use some digitisers to grab several frames and so

make simple video sequences that can be replayed as standard animation files.

Adding your own sound is usually a lot cheaper than video. A sound sampling cartridge (such as the TechnoSound Turbo) costs about £30, and you can use it to insert your own voice in your projects.

Music can easily be obtained from the Public Domain libraries that are filled to overflowing with MED tunes (always get permission from the person who created them). If you need higher quality music, it's possible to control external musical instruments via the MIDI standard. Amazingly, high-quality MIDI sound modules are available for a few hundred pounds (less second-hand). With OctaMED or a MIDI sequencing program such as Music-X or Bars & Pipes you can create (or obtain) music soundtracks of professional quality. In many ways Bars & Pipes is a multimedia package in its own right, because it can be used to display images and animations.

Authoring systems

The key to making a good multimedia project is the authoring system. If you are a keen Do-It-Yourself fanatic, it is possible to do without a specific authoring tool, although it will require a lot more effort. You can either code the entire project yourself in a programming language, such as C, Assembler or a BASIC variant (Blitz, AMOS), or make use of existing utilities. If you are set on programming everything yourself from the ground up in C or Assembler, consider buying the GameSmith system from HiSoft (☎ 01525 718181) that includes reliable code libraries for loading and displaying images. Both Blitz and AMOS contain their own comprehensive IFF-related commands.

Using utilities to create a project is certainly possible, although the results may look a little ropy in places because it is hard to integrate everything together. The key to the DIY approach is a good understanding of AmigaDOS commands, ARexx scripts and access to a good source of utilities.

With programs such as Viewtek and one of the many freely available music replay modules, you can quickly create scripts to load and display images and music. However, by far the easiest way to proceed is to buy a dedicated authoring system.

Don't think that these all cost the Earth: prices start at about £40, and usually only begin to get very high when you need more features or want to make some money.

Most authoring systems work on a "page" system. Each page of your project is a screen display, and you define the elements that make up the display (text, images) by loading them from disk. You can then define how the elements interact: for example, what happens when a button is pressed, whether an animation is played when the page loads, what sound effects are present and so on. Each page is usually linked to several other pages, and these are either selected by the user or automatically in the case of presentations.

The finished project can then be saved to disk, and as often as not, a freely distributable playback tool is provided so you can share your work with your friends or make it available from Public Domain libraries.

There is one element to using authoring packages which is often neglected: it is great fun. Seeing your graphics and animations come to life in a real, interactive form on-screen is incredibly satisfying.

If you are already an accomplished programmer, don't make the mistake of thinking that these packages are for sissies who can't code: at the very least they can act as first class program prototyping tools. As an advanced user you will often be able to take more control over the more low-level features, or even integrate your own programs into the finished production.

Beginners will love the way that a simple "drag and drop" approach can instantly make them into programmers, rather than merely users. Multimedia offers something for everyone.

Controlling extra hardware

When you really get into the multimedia authoring lark, or want to add professional effects to your work, you can start to add some external hardware.

One of the simplest possibilities is supported by many authoring system: control over a CDTV or CD32. If you happen to have a spare CDTV knocking about (or see one in your local paper for £50), connect it via a null modem lead to your main Amiga. Stick a standard audio CD in it, and you will be able to automatically select which tracks to play and when. Some systems also provide support for the CD32, which means not only will you be able to control audio playback, but with the optional cartridge, Full Motion Video too. Unfortunately, creating your own FMV footage is still a nightmarish task, and burning your very own CD-ROM is also rather expensive. However, if you are offered lots of money to create a multimedia system that requires these options it's good to know they are possible.



Even text control in Scala is easy: you can use as many fonts as you like, whatever style and all with their own fade or wrap.

"The key to making a good multimedia project is the authoring system."



With AGA Amigas and Scala, the 256-colour mode is used to great effect. Not only in the presentation, but at the authoring stage too.





CanDo programs can run on the Workbench, but also on their own screen with your own graphic images, like other authoring packages.



"With a little ingenuity your Amiga will be able to control audio CD-players."





For the more keen amateur, it's possible to build (and buy) systems that allow the control of equipment by infrared remote control. These systems "learn" the codes from the remote handset, and can then replay them under ARexx control. With a little ingenuity your Amiga will be able to control audio CD-players as well as video tape recorders and laser disk players.

Reviews

Scala MM400

Scala has almost become synonymous with multimedia on the Amiga, and one look at the Scala MM400 package will demonstrate why that should be. You won't believe the images that appear when you play back the demo scripts.

The text is amazingly clear, and the wipes, scrolls and fades will simply blow you away.
Five minutes after loading Scala you will want to re-edit all your holiday film footage to make use of all the astounding effects.

Scala uses a scripting approach: each line in the main menu describes an event such as a picture or an animation. You can quickly select background textures, images and animations from the graphical "shuffler" file requester and add sound effects, tunes and wipes. A new animation standard is introduced to give the best possible playback speed from hard disk, and a utility is provided to convert your existing animations. Sound samples too can be replayed from disk if you need lengthy commentaries or sound effects.

There is no doubt that Scala is designed primarily for producing visual presentations and video effects, but that is far from the end of the story. The extensive collection of "EXes" – Scala's way of controlling external hardware – includes support for the CDTV and CD32, GVP, Neptune and other genlocks, MIDI file support, laser disk players, V-Lab and Frame Machine digitisers... Scala also produces MPEG playback hardware if you need to integrate live video into your project, and a video editing suite.



The ARexx port and associated Lingua scripting language mean that simple programming projects are possible too: the examples provided include score keeping and a quiz game. £299 seems high, but I can assure you that once you see what can be achieved you won't regret paying for an instant.

It's good to see that Amiga Technologies are bundling the slightly cut-down MM300 with the A4000: but every Amiga owner (well those with 4Mb of RAM and a hard drive) should have Scala: it's what the Amiga was built for.



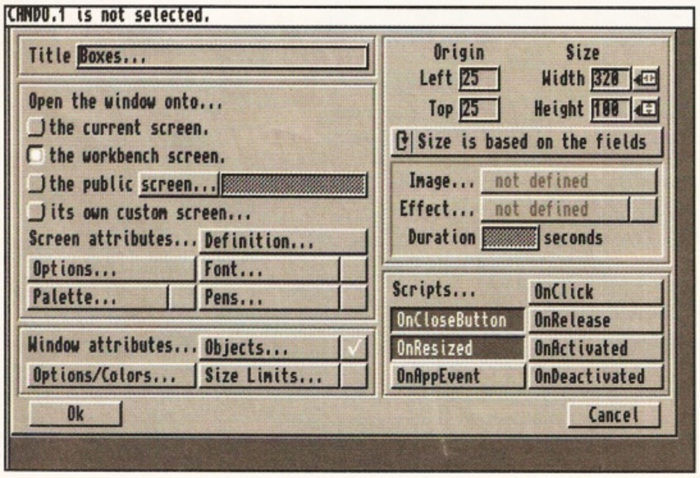
CanDo's built-in buttons. You can choose the buttons you prefer.

Scala MM400

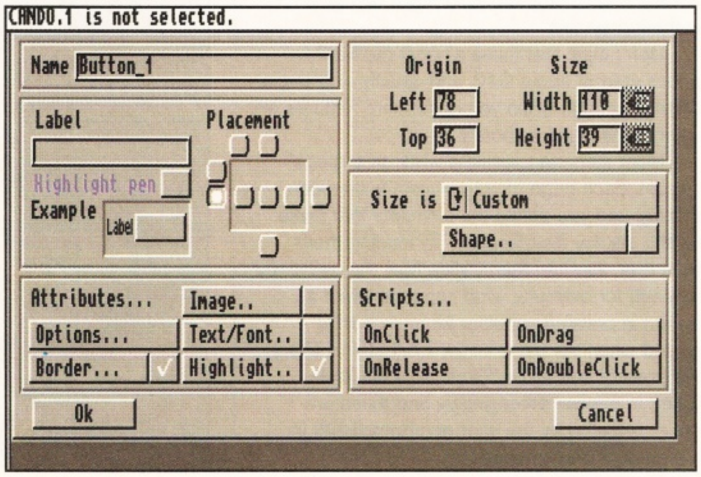
Price: £299
Supplier: Scala UK Ltd
Contact: 01920 444294
Verdict: 95% Star buy

CanDo v3

CanDo differs from a package like Scala because although it can be used to create presentations, it is really a programming system. It contains far more programming features than



A CanDo project can open on the Workbench screen, any public screen (for example, another application) or its own private display.



When a button is defined in CanDo you have a huge amount of control over what happens when it is pressed: and how it appears.

any other multimedia system available for the Amiga, and yet is also still easy to use.

Whereas Scala could be used to create a quick title sequence for a video, CanDo is more at home creating a graphical adventure game or an interactive guide to car maintenance. Although both CanDo and Scala could be interchanged to achieve the same goal, CanDo is definitely more programmer-orientated. With CanDo you can create utility programs which run on the Workbench in OS-friendly windows.

That's not to say that CanDo is a glorified version of BASIC. Although it is script-based (you can type in commands if you like), it's also extremely easy to use. Define a screen, add some buttons and like actions. The actions can trigger animations, images or a move to another page: but the actions can also be linked with complex string manipulation, file handling or a call to external programs.

CanDo is a great tool for programmers because it takes all the drudgery out of creating a graphical user interface (you simply draw it on-screen with the mouse), without losing any of the programming features. The many powerful graphics and sound commands mean that it is easy to create a very smart-looking program, and yet the totally Amiga-friendly way of doing things means that no-one will suspect you have used an authoring package.



For some reason CanDo never really got the recognition it deserved as an excellent multimedia and programming system. If you give it a try, you won't be disappointed.

CanDo v3

Price:	£79
Supplier:	Silica
Contact:	0181 309 1111

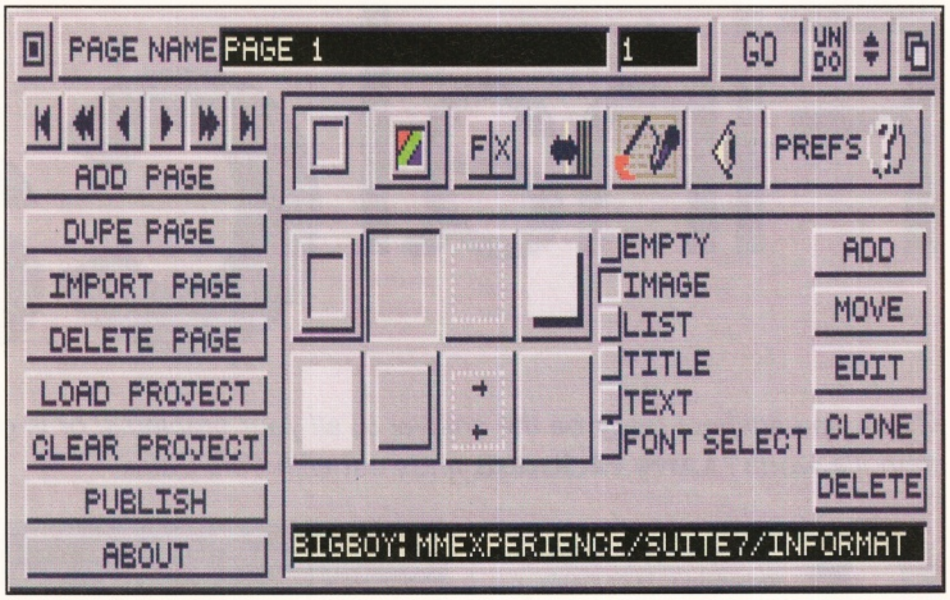
Verdict: 89%

M.M.Experience

If you are looking for the ideal introduction to creating multimedia productions, look no further than MultiMediaExperience from Optonica. The M.M.E. package has evolved from the Interplay system which Optonica themselves used to create the INSIGHT: Dinosaurs CD-ROM. Amazingly, M.M.E. has more features than Interplay and yet, whilst Interplay cost £750, M.M.E. can be yours for an infinitely more reasonable £39.99.

M.M.E. looks and works in a very similar way to the Interplay system. First of all you define a page, and then add the required graphics, buttons and other "media clips". Media clips can consist of images, animations, CDXL files (the Amiga's own digital video format), sound samples and music files. You can also assign actions such as moving to another page or launching an external program. There are plenty of wipe effects if you need to smarten up the appearance of text on the screen, and screens can be up to 256 colours (on AGA) machines and be as large as PAL overscanned interlaced.

The "invisible" box system means that you can draw an attractive control panel in Deluxe Paint, then load it into M.M.E. as a background. You can then place invisible boxes over the



Each page of MultiMediaExperience contains buttons: and each button can be defined in many ways.

controls you drew on the background image and assign actions, such as moving to new pages or triggering animations and sound effects.

If you need to create a CD-ROM with your project on it, Optonica also produce an M.M.E. Pro version for £249.95, which handles all the preparation that the ISO files require. The Pro version also includes support for the CD32 controller and other features such as animated menus and the ability to send FMV video streams to the MPEG cartridge on a CD32.

In style, M.M.E. can seem cramped when compared to other authoring systems. This is because programs like CanDo provide a complete programming language, whilst M.M.E. is a program for creating multimedia presentations. However, you will be able to create some very attractive and powerful projects with it. The more you use it, the more you will appreciate the more powerful features such as the ability to automatically create indexes from directories full of images, the glossary options and the use of the Help button. You can use the supplied player program to share your work and no royalties are even incurred. ■

M.M.Experience

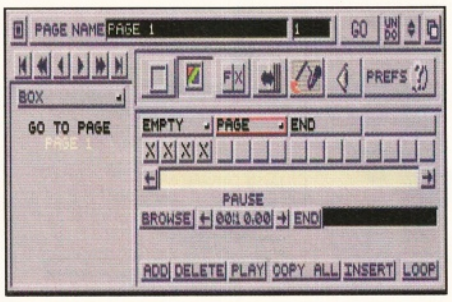
Price:	£39.95 (Pro version £249.95)
Supplier:	Optonica
Contact:	01455 558282

Verdict: 85%

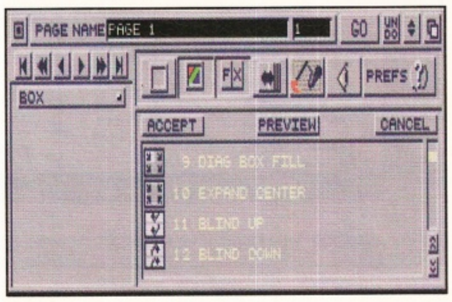


"You will be able to **create** some very attractive and powerful projects."





Each M.M.E. button is assigned an action: from the mundane to the exciting.



All kinds of wipes are provided: they look good on video and add interest to interactive projects.

FinalCalc

Can a spreadsheet really be the answer to all your problems, or is getting to grips with it more trouble than it's worth? **Larry Hickmott** *finds out with FinalCalc.*

Of all the applications you can buy for your Amiga, a spreadsheet is probably one of the least popular. Unlike a word processor, the concepts behind a spreadsheet are hidden in a cloud of technofear.

One package that aims to break the mould, however, is FinalCalc from Softwood. This company make two of the most popular products on the Amiga – Final Writer and Final Data. FinalCalc adds a new string to the Softwood bow and in the process helps create a suite of programs useful for both personal and small business use.

Of all the Softwood packages, FinalCalc is one of the most demanding on both the brain and your Amiga's hardware. Among the system requirements are a hard drive and at least 2Mb of free memory before you run the program. It also consumes up to 5Mb of disk space when installed.

Technophobia strikes back

I've been spoiled by PC spreadsheets which, by and large, are user-friendly because of the large home market, so I wasn't quite ready for the complexity and technical nature of FinalCalc. This isn't a criticism of the program because those who use spreadsheets regularly will probably find its powerful functions very useful. But spreadsheet novices had better be aware that there is a steep learning curve attached to this package.

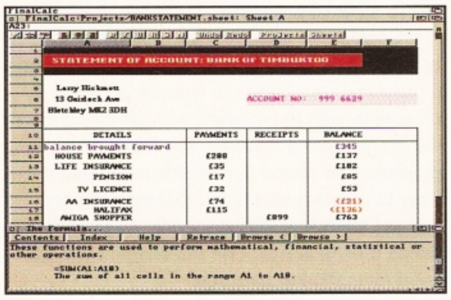
Jargon buster

Cells: A box or pigeon hole that can contain text, numbers or formulas.
Formula: A formula is something you can place in a cell so it performs a function such as adding up a row of numbers to create a total for the cell containing the formula.
Macros: A mini program that helps automate tasks that, when performed manually, can be both time-consuming and boring to boot.

Softwood's Woody Williams says that they will be doing everything they can to make FinalCalc user-friendly for spreadsheet novices. Quite what that will be, I'm not sure, although a tutorial section for the manual and some templates would be a good place to start.

This is version 1 of FinalCalc and according to its author, Khalid Aldoseri, the wish-list for version 2 is growing steadily longer, which is good news for all us Amiga owners.

Spreadsheet novices aside, once you have mastered some of the basics of FinalCalc, only then do you start to see just how powerful this package is. There are three main areas I looked at when assessing the program – the interface, the features for creating graphs, and how well the program handles files from other programs such as Lotus 123.



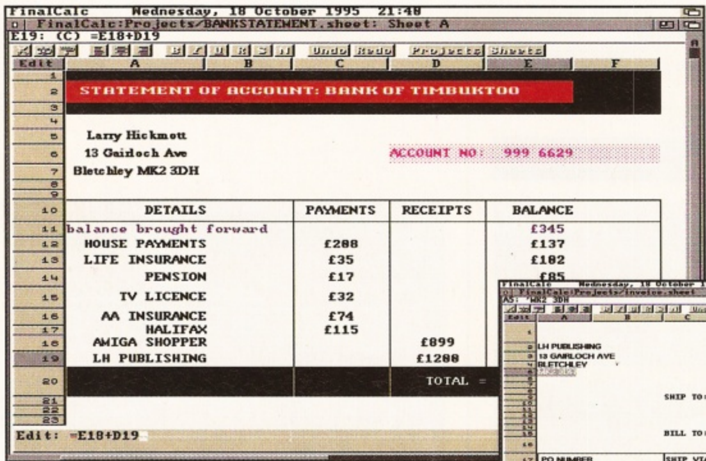
When the going gets a bit tough, you can call up the on-line help for some divine inspiration on how to get the job done.

Not your average spreadsheet

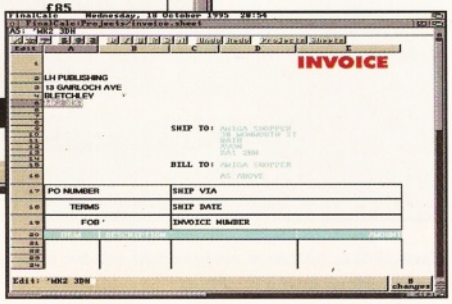
Coming from a publishing background, the first thing I wanted to do was to create a spreadsheet that didn't look like the typical example that you see in many reviews. In other words, I wanted to get away from the black and grey examples seen in the manual and on the program's box.

This was when I discovered that an individual cell's background colour can't be changed, although the colour of the text for that cell can be. This is only important if you want to create a spreadsheet using different background colours for headings and the like, as you can with many of the new PC spreadsheets. But this doesn't affect the functioning of the program, and because the background colour of the cells can be changed globally (all cells, in other words), you can still be creative with your designs.

FinalCalc is also very flexible when it comes to fonts. It supports the same fonts as Final Writer, as well as many others. But on screen, these outline fonts are represented with bitmaps which you can get the program to create. It's not an ideal situation having to work with both screen and printer fonts, but once you have set up the fonts you want to use on screen with the ones to be used when



Left: Keep an eye on your finances with FinalCalc. It is the perfect tool for keeping you out of the red.



Right: A spreadsheet doesn't have to be rows and columns of numbers. FinalCalc lets you create lots of interesting designs like this invoice.

What is a spreadsheet?

Before personal computers came along, spreadsheets were mainly paper-based documents used by accountants. Now, even the Oxford dictionary lists a spreadsheet as being a computer program.

Unlike the easy-to-understand word processors, however, the hapless spreadsheet is a much more maligned creature due to a lack of real information about what it can do for you. If you think of a spreadsheet as a type of calculator-come-database, and one that can be as powerful or as simple as you want it to be, the uses for this software varies greatly, depending on how much of a lateral thinker you are. This is because it's generally up to you to design the interface for presenting your information using the tools provided by the program.

Spreadsheets can be used for much more than those which contain only boxed information neatly laid out in columns and rows. You can use a spreadsheet to create a copy of your bank statement, as a database for keeping track of members of your local stamp collecting society, or for predicting what huge profits you can make from selling your mum's coconut cookies over the next five years.

The basic principle of a spreadsheet is one of cells, or if you like, pigeon holes that are spread both across a page in columns as well as in rows down the page. This grid forms a sheet. In the cells you can put data. This can be text, such as a heading, or it can be a set of figures such as your income for the week.

Having your data all laid out in boxes is one thing, but doing something constructive with it is altogether different, because to do that you need what are known as formulas – mathematical operators like a plus or minus sign on a calculator.

These operators can be made to interact with one or more cells, in one or more spreadsheets, to come up with a result that will appear in the cell containing the formula. This enables you to make a spreadsheet add up a series of figures. What makes spreadsheets like FinalCalc different is that the formulas at your disposal can be much more powerful than a simple addition. You can perform scientific calculations, for example.

Once you have created a sheet with various types of data in your cells, a graph can be created which represents the results in a pictorial manner.

Most spreadsheets have a graphing function, with some like FinalCalc really spoiling you for choice. These graphs can usually be printed, or if you prefer, saved to disk to use in another program like your word processor.

printing, the quality of the output makes the hard work well worthwhile.

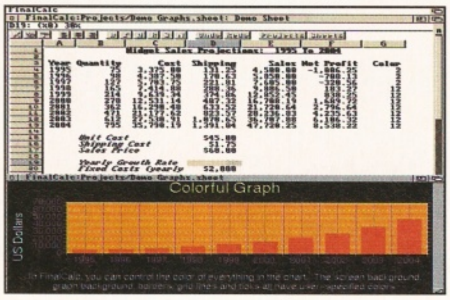
Graphic illustrations

The situation is the same for the graphs, which can be output at the maximum resolution of your printer, so although you can save the graphs as IFFs for use in other programs, when graphs are printed from FinalCalc, they don't print with jagged edges. The manual also says that the output can be saved to disk as EPS, but doesn't actually tell you how this can be done.

Printing with FinalCalc is very quick thanks to the program's print spooler which prints various jobs in the background while you get on with your work.

But before you print something, you'll need to create some data. Whether it's a complex spreadsheet for a set of yearly accounts or a simple invoice, all the functions are in place to help you with many of the tasks you'll want to undertake.

One of those useful functions is the macro and FinalCalc comes with hundreds of script commands which are very well documented, so you can automate many tasks that otherwise could be time consuming.



FinalCalc enables you to create lots of different types of graphs. Even animations!

The real power of FinalCalc lies with its almost 200 different formulas which can be used for simple mathematical equations as well as scientific ones. These can then be used to create a range of stunning graphs. From 2D and 3D to animated graphs, FinalCalc is overloaded with features in this area. And it really does excel (if you pardon the spreadsheet pun) when it comes to visually detailing your data. Yet, like the program itself, these graphing features are not only very powerful, but they also have a steep learning curve attached to them.

Have spreadsheet, will travel

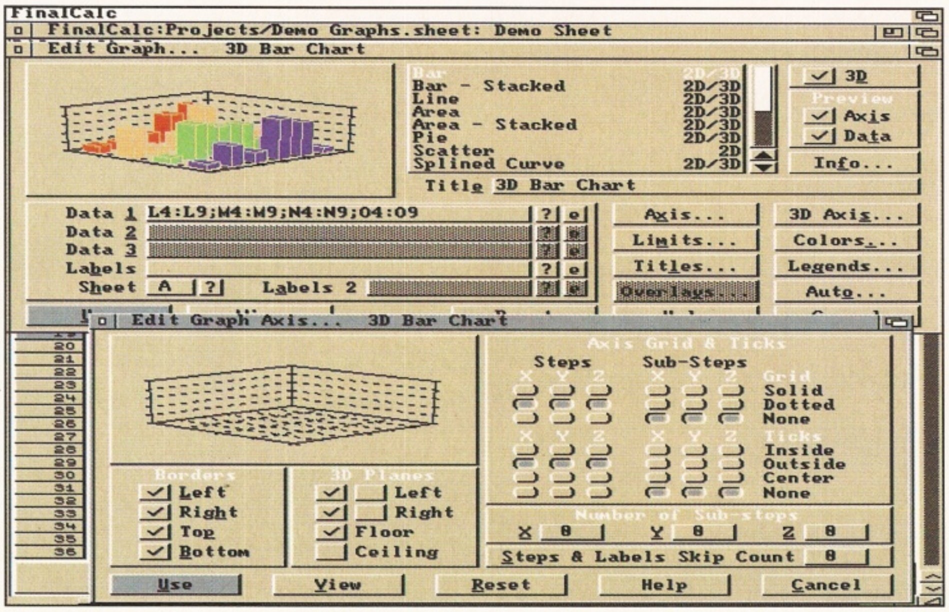
Creating a spreadsheet is one thing, being able to load it into a program on the PC or Macintosh is usually quite another. Not so with FinalCalc. It supports the industry-standard Lotus 123.wk1 format which means you can take a spreadsheet file from a PC and load it into FinalCalc. This also works in reverse, although when tested this produced errors in some cases because the formulas from FinalCalc were misunderstood by the PC program. That's something I'm sure Softwood will address as time goes by and they receive reports of how these errors are occurring.

FinalCalc can also be used as a database. I had no problems taking an ASCII data file from Final Data and importing it into FinalCalc using its text import filters. This sharing of data, though, could be better.

Despite coming from the Softwood stable, there's no evidence of a real attempt to show users how Final Writer or Final Data can work together with FinalCalc. Imagine being able to create a table in FinalCalc and then placing it into Final Writer using ARexx. That's what we want!

The bees knees

After a week of intense brainstorming, I came to really like FinalCalc, despite some of the shortfalls in the documentation. If you want a program for not only doing your personal accounts, but one that can also act as a database, create graphs and lots more, then FinalCalc is worth a huge shout. ■



When I said there was a steep learning curve in creating a graph, I meant it. Look at all those options!

FinalCalc

Price: £99.95
Supplier: Softwood Europe
Contact: 01773 836781

Verdict: 88%

"If it sounds like I raved, then I`ve communicated successfully exactly how groovy this product is ".

Ami-FileSafe

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Test	FFS	AFS	Units
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CreateFile	227	1073	k/sec
ReadFile	244	1363	k/sec
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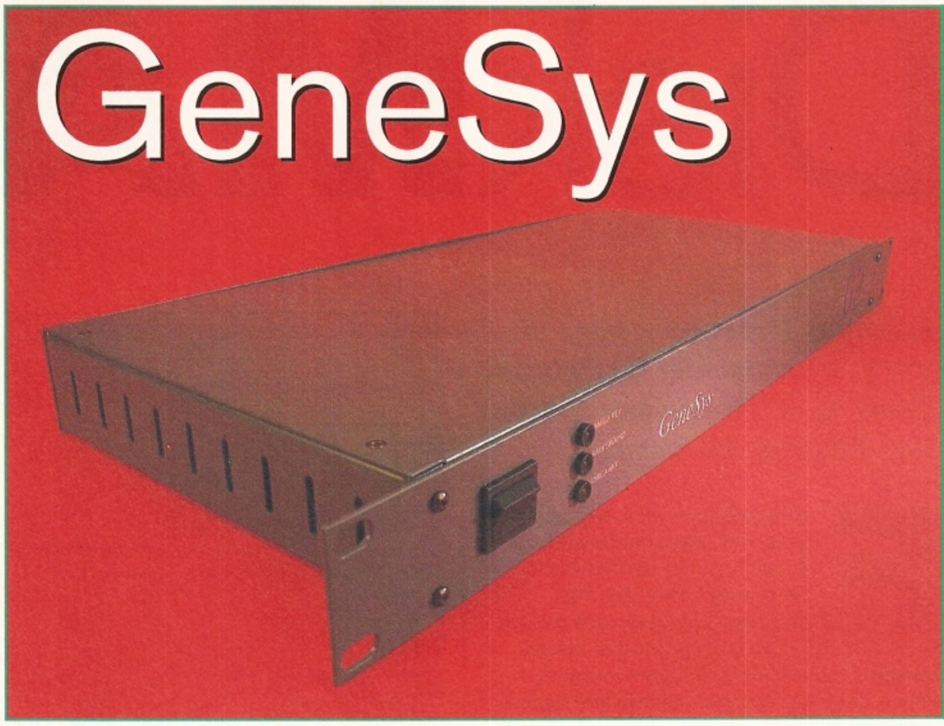
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G2 GeneSys



If you're serious about video, then you should take a look at G2's GeneSys. **Steve McGill** *gives you the gen...*

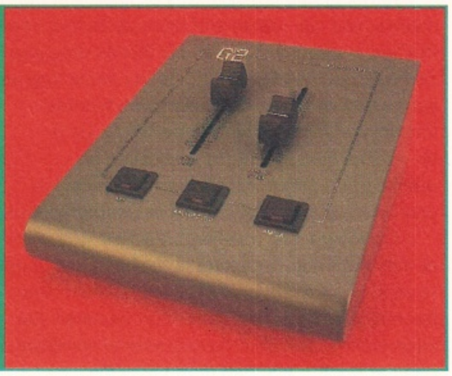
If there's one area where the Amiga has still to be seriously challenged by any other home or industrial computer, it is in the field of video and desktop video.

That there is such a diverse proliferation of good, bad, indifferent, and excellent genlocks is testament to this. The main criteria to be considered when purchasing a genlock is the use to which the end user intends putting it.

If, for example, the genlock is only ever going to be used to overlay titles or graphics on a video diary of your baby growing up, it's hardly going to be worth spending more than £100.

On display

For all genlocks do the same thing – split an incoming video signal into its component parts – take the timing signals from the incoming video and 'lock' the Amiga's graphic output on to the external video source. This results in a mixture of the two displays.



That some do this better than others is the reason for their diversification, proliferation and varying price ranges. The G2 GeneSys from G2 Systems is a high-end genlock that will empty your pockets to the tune of a cool £1,000 and deliver one of the best encoded and genlocked video signals of any genlock on the market.

Housed in a stylish grey, heavy duty, well-shielded metal box, with a minimalist fascia and four lug holes for rack mounting, you know straight away that the GeneSys is a serious piece of kit.

The fascia sports three LEDs and a power switch. The LEDs tell the user which mode the genlock is currently working in; Amiga Key (Amiga Graphics Only), Background (video signal only) and Amiga Mix (Amiga graphics overlaid on video background).

Each of the above modes can be switched to manual by using the supplied control box – connected separately through a 9-pin cable – or through software control. We'll come back to the software control later.

The control box, much like the GeneSys itself, is high quality in build and houses two linear sliders and three switches for switching between the three video modes. The faders can be used to balance the mix of Amiga graphics over the background video signal. The fade-to-black slider fades the whole signal, surprisingly enough, to black.

All of the above functions can also be controlled through software. The software control panel looks crude and has a horrible Workbench 1.3 look to it. But it works. More conveniently, it works in conjunction with ARexx, which is a godsend to anyone working with an ARexx-compatible edit controller such as the Hama A-Cut. This allows fully automated editing if required.

Colour effects

The software also enables the user to choose which colour they want to use as the overlay colour – that is, the colour that becomes transparent and lets the background video signal shine through. Creative use of this feature can lead to several handy and impressive effects.

But not as impressive as the picture quality of the unit. The GeneSys can cater for Hi-Band signals such as S-VHS and Hi-8mm and standard composite. This allows for maximum flexibility and ensures that no matter what equipment is being used, the GeneSys should be able to handle it.

Curiously, and ever so slightly annoyingly, the switch to toggle between Hi-Band and composite signals is located at the rear of the unit. If used in a racking system this could lead to unnecessary inconvenience.

Don't let it put you off though. The GeneSys is a class act. While it can't work miracles if fed with a poor signal – the maxim of 'Garbage in, garbage out' still applies – the output quality is first-class. Pictures were sharp, crisp and produced the minimum of fringing where graphics and video met. The acid test was the overlaying of a digitised Union Jack on to a yellow wall (yeuch). The flag's deep saturated blues and reds were handled nigh on perfectly with the minimum of fringing where the flag met the live video. Impressive. Very impressive.

Way cool

In all, the GeneSys is a cool piece of kit. Picture quality and handling is of a high enough standard to ensure that the professional and semi-professional can use it to impress clients and customers with their presentations, safe in the knowledge that their work will look good.

While it's not going to be too popular with home users – the price of a cool grand will see to that – it still rides high in the 'I want one' list. The software controlling system could have been better presented and should probably have offered more sophisticated functions, but that's more a matter of aesthetics than any particular disfunction on the software's part.

If you've got a studio or are considering setting up a video-related business, or even if your company relies on promotional videos of some sort, take a close look at the GeneSys. It could earn you money, prestige or both. ■

G2 GeneSys

AMIGA SHOPPER ✓ ★

Price: £1,115.50 hdware contrl
£1,061.45 sfware contrl
Supplier: G2 Video Systems
Contact: 01252 737151

Verdict: 90% Star buy

DiskMAGIC

Michael Thomas *weighs-up the latest contender for Directory Opus' best file manager title, to see if it goes the distance.*

File managers have, especially in recent times, suffered a great injustice in the form of their name. The term file manager conjures up a picture of a dull and boring program that simply moves files around a computer system when in fact, a modern-day file manager is often so much more.

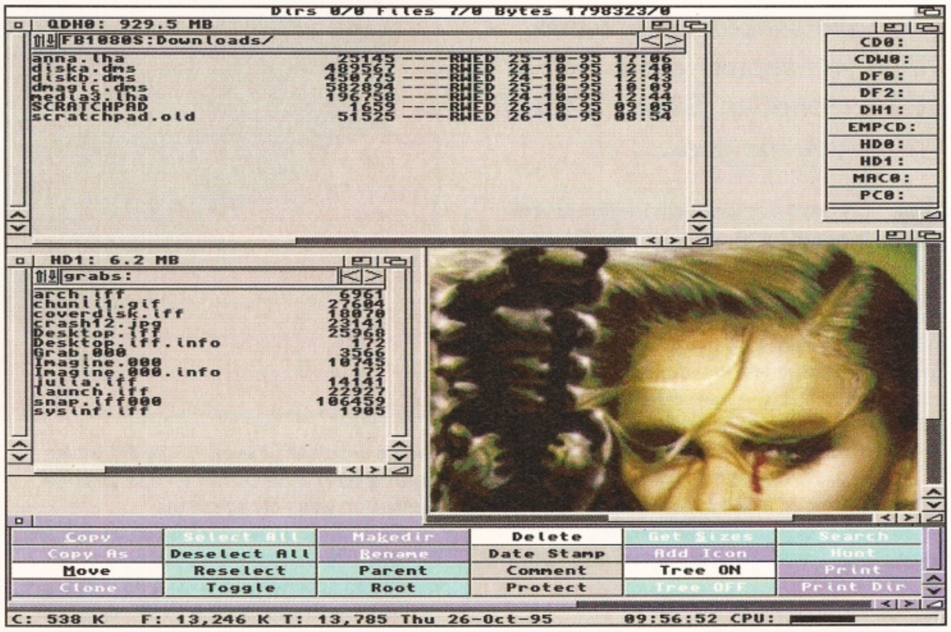
File managers can, in effect, form a hub of operation for performing a variety of tasks, such as viewing pictures, animations, text, playing music and samples, creating archives and even launching other programs and utilities. Not satisfied with this the Amiga's favourite file manager, Directory Opus, has even gone as far as replacing Workbench as an Operating System. However, whatever their degree of sophistication, file managers are an important part of serious computing.

DiskMAGIC is just such a beast and follows a long tradition of file managers on the Amiga. It will have to be very good indeed if it is going to make an impression on a market already dominated by the likes of Directory Opus 5 and, most recently, InfoNEXUS 2.

Young at heart?

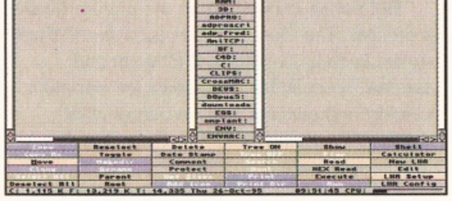
DiskMAGIC has not made what would have probably been a futile attempt to match Opus's sheer power and incredible number of unique features. Instead, it has gone for simplicity and ease-of-use and its interface reflects this. I must admit that my first impression was that the program was probably produced by Fisher Price. I don't mean this in bad way, it's just that the greater portion of the interface is occupied by a number of large, colourful icons that make the program look suitable for a small child.

The program's default appearance is very much the same as Directory Opus 4's – with two main directory windows to the left and right of the screen and the button bank at the bottom. However, as with many PD file managers, DiskMAGIC also has a device list running down its centre which provides the user with easy access to frequently used drives or assigns. In fact, because of the similarity in style of the icons to those common amongst MUI applications and Magic Workbench, you could be forgiven for thinking it was a MUI-reliant program. While this is not the case, because



This is DiskMAGIC running on a Workbench in conjunction with Multiview.

"You can create and store up to **four** user-defined interfaces."



This is the default screen for DiskMAGIC which closely resembles Opus 4's.

DiskMAGIC is a fully independent program, the interface is just as user-configurable as a MUI application in terms of how it will appear.

Although it's not very well explained in the manual, you can create and store up to four user-defined interfaces. You can do this by dragging and re-sizing windows in much the same way as you would windows on a Workbench screen. This is similar to the way Directory Opus 5 works, but DiskMAGIC is limited to only opening two directory windows whereas you can open as many as you like in Directory Opus.

Opening more than two directory windows at a time can be confusing at first and can lead to all sorts of mishaps. However, it would have been nice to have had the option because you soon learn to adapt to having several windows open at once – you can then enjoy the advantages afforded by such a system.

As mentioned briefly before, the program's interface is highly configurable and to aid you in creating an environment that is tailored to your needs and taste you can use a total of 16 preferences editors that determine how DiskMAGIC looks and behaves.

The first of these is the Device editor which enables the creation of a list of devices and assigns that the user may want to be made available. Using it is simple – just add new entries and select the device from a list of those available on your system. It's possible to instruct the program to ignore this list and create its own from the drives that are present on bootup.

The Display preferences are where you set the layout of the windows, how the scroll arrows

will appear and which gadgets will appear on the windows, such as ones for entering directory paths and whether or not to have scroll bars or a parent directory gadget.

A separate, but related, preference editor is the Screen editor. This can be used to specify the screen that the program should use as well as the colour palette and fonts that should be used. A nice feature is that the program re-sizes itself so that it fits any font size the best it can. Although it can't make itself the default public screen as Directory Opus 5.11 can, it is able to use any screen including Workbench's. This makes integrating the program with other utilities, such as picture and animation displayers, that much easier and complete.

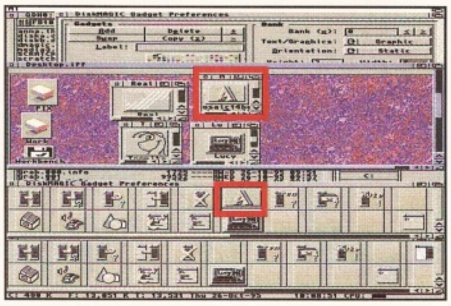
Identify yourself!

Perhaps one of the most important features in a file manager is a filetypes function. These are used to identify different types of files and perform a specific function in response to a user action such as double-clicking on the file. This can range from a simple internal function to launching a separate program, and is useful for displaying pictures or playing sound files.

You can add new filetypes by specifying a matchcode that the program should look out for which could be simply a file extension or even a section of hexadecimal code contained in the file. Although it is relatively easy to create filetypes, it is a shame that only a few were supplied, compared with the dozens supplied with Directory Opus 5.

Perhaps the most intriguing preferences editor is the Gadgets editor which can be used to assign functions or programs to the button bank. As with Directory Opus, you have control over the button's colour and the text it contains.

However, this is where those large, colourful icons that I mentioned earlier come in, because DiskMAGIC has two modes of operation for its button banks; graphical and text. In the graphical mode icons can be used instead of text entries. Presumably, this is to facilitate quick recognition of a button's function in much the same way as Workbench and other icon-based systems. The best bit, however, is that you can create your own icons by loading an IFF picture and cutting out a brush to be used for the icon.



Creating colourful and identifiable icons is a breeze because you can paste in IFF images.

> “DiskMAGIC is really for the Amiga user who **wants** to have things their way.”

This way you can create icons whose functions you can recognise easily. However, it would have been more convenient if the program could have loaded a program's icon so that you don't have to make one yourself.

The StartUp editor enables you to set several variables at boot-up. These include the execution of ARexx scripts on startup and iconification and which directories will appear in the directory windows by default. Other preference editors include the Mouse editor which can be used to assign different functions to a maximum of three buttons; the Menu editor for adding functions to menus and the Hotkey editor for creating keyboard short-cuts quickly and simply.

A unique feature of DiskMAGIC is the way it handles LHA archives. It treats them in much the same way that the PD program Archandler does – as directories. The program automatically displays the contents of an archive in the directory listing as if they were normal files or folders. This makes it possible to view images or run programs normally because the program transparently de-archives the files temporarily.

Well, that's just about all of DiskMAGIC's main features, but how does it measure up to the competition? Well, we know it's not as powerful or has as many ground-breaking features as Directory Opus 5, but that doesn't mean it has to be considered inferior. There is a great deal to be said for a highly configurable and simple interface and not everybody needs the power features that Opus has to offer.

DiskMAGIC certainly has the advantage in the reliability department because Directory Opus 5 has been known to behave quite erratically on some systems. However, DiskMAGIC does fare quite badly in speed comparisons although it is fairly quick, but not as fast as InfoNEXUS 2 when reading directories in general operation, such as when copying files – it can be a little sluggish.

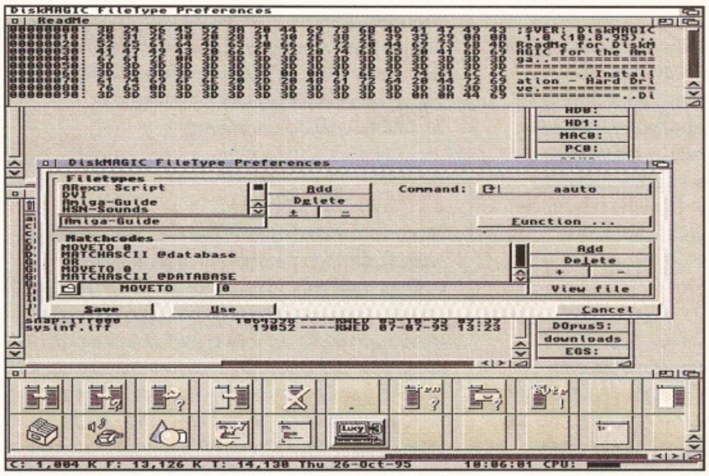
In terms of power and features it is very hard to separate DiskMAGIC and InfoNEXUS 2. InfoNEXUS has an advantage in its superior image viewer, but DiskMAGIC has a respectable text and hex reader and its interface is that much more adaptable. However, DiskMAGIC is more expensive than InfoNEXUS (about £15 more), and I'm sure plenty of people will gladly trade in the extra configurability of DiskMAGIC and pocket the difference.

In the end choosing a file manager is a very personal choice and the bottom line is that DiskMAGIC is really for the Amiga user who wants to have things their way and doesn't mind paying a little extra for the privilege. ■

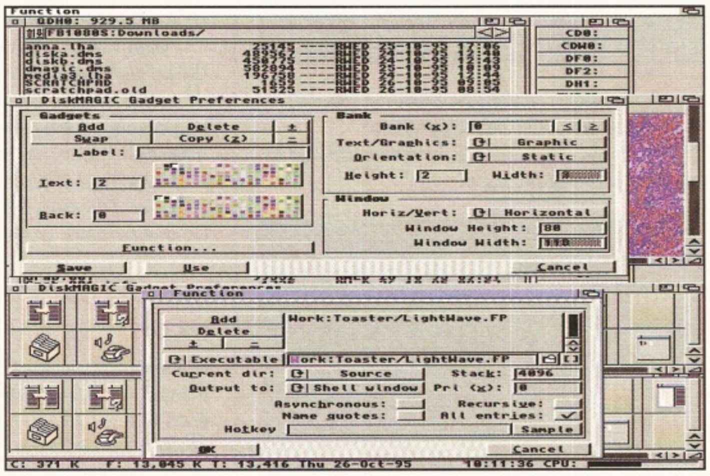
DiskMAGIC

Price: £39.95
Supplier: HiSoft
Contact: 01525 718181

Verdict: 87%



As with Opus and InfoNEXUS, DiskMAGIC has support for user-definable filetypes. This enables automatic actions to be taken on certain files.



DiskMAGIC's Gadget editor can be used to add programs and internal functions to its bank of buttons which can either be in text or graphic mode.

Dinoverse

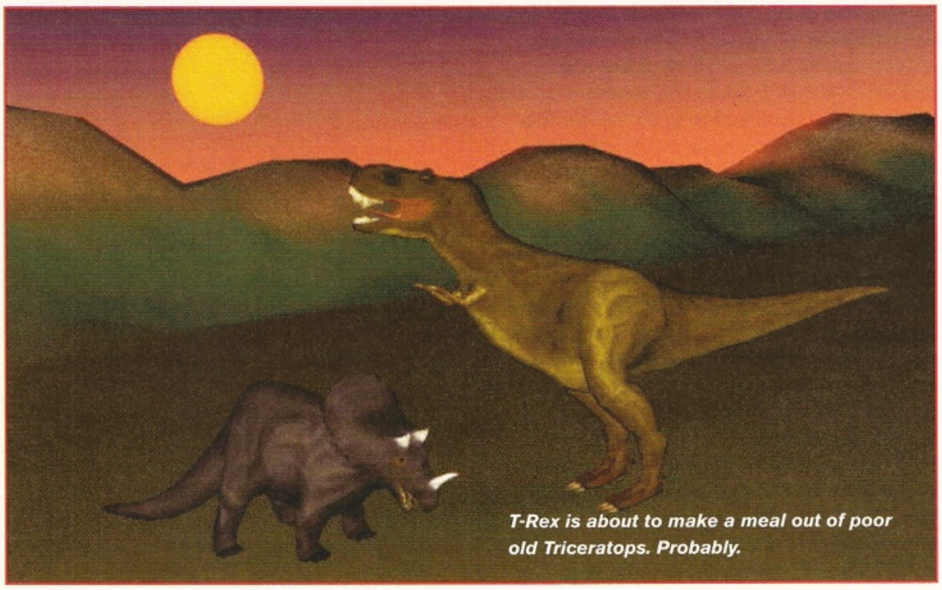
Knowing that your thigh bone is connected to your hip bone is essential to get to grips with this dinosaur objects program for Imagine 3. **Barry McCarthy** *does his best not to end up in plaster…*



Dinoverse includes some very strange images!



Imagine still has big problems with altitude/bump mapping.



T-Rex is about to make a meal out of poor old Triceratops. Probably.



Above: Apparently, dinosaurs invented footie, or did they just retire to the terraces?
Below: Hmm... I'm sure this wasn't mentioned in my Big Book Of Dinosaurs.



This is the sort of software which is great for those people involved in the specific area that it addresses, but it may be a little difficult to grasp for first-timers. To reach as many people as possible, I will explain the underlying ideas behind Dinoverse. If you aren't familiar with bones, hierarchical modelling or animation then this should make things clearer.

Dinoverse is designed to animate dinosaurs. Unlike many other forms of software, 3D programs are not intuitive. They work very well, and exactly as they are supposed to, but using them does not come naturally. A reference manual is essential and the Imagine manual you'll have to wade through to make full use of Dinoverse is not an easy read.

Skeleton in the cupboard?

Installing Dinoverse is a pain – you have to manually create drawers in Workbench and drag each of the 10 floppy disks, one by one, into the newly-created drawer. Then you have to edit your User-StartUp Sequence. A simple install routine would tidy this up and immediately make the package seem more professional.

Dinoverse animates its dinosaurs by using 'bones'. You will see bones referred to in most 3D packages these days. So what are they and why use them?

Bones are essentially for character animation (although the sneaky and inventive animator will find many more uses than simply character movements and modelling). In the past, certainly with Imagine, if you wanted to have moving limbs on a figure, they had to be separate objects. This meant that as you moved, say, an arm on a body, there would be this awful joint, where the objects were not actually joined. There was simply no way of curing this limitation, until bones arrived.

Dem bones

Bones are exactly that – bones. They sit inside objects and form a skeletal structure that defines how your object moves. Each bone is, of course, connected to another bone and each bone represents a moving part of the model. In Imagine's case, as with most bone systems, the bone is actually like a little magnet. It has an area of influence in proportion to its shape and size. Essentially, as you move a bone, the part of the model that surrounds that bone moves with it. The model is deformed (bent or twisted, etc.) by the bones inside it.

Family tree for bones

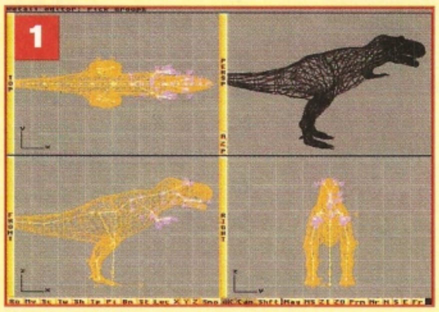
1 **When you pick a bone, all of it's "children" are also selected.**

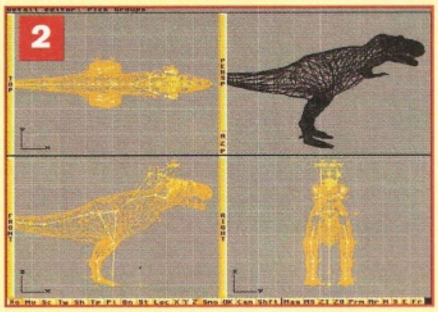
2 **Rotate the selected parent bone (on it's local axis) and all the children rotate with it.**

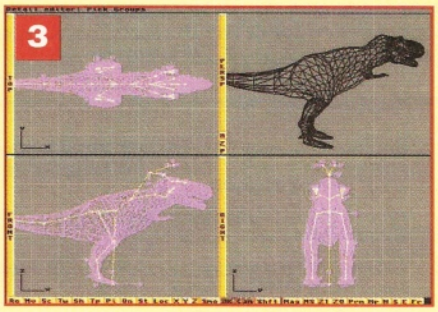
3 **Now select the main parent, that ALL bones are connected to.**

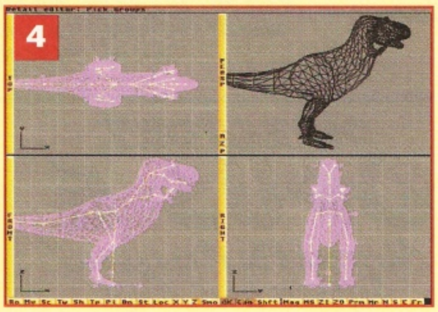
4 **Select "Bones_Update" and – hey presto – a new position for Rex.**

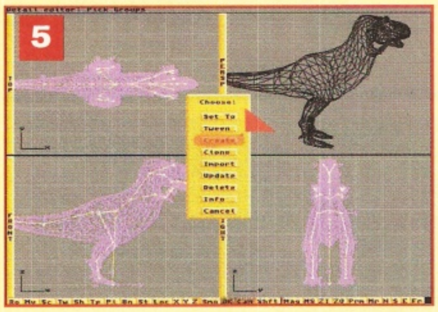
5 **But don't forget to create a new state before you save your new Rex.**











The other essential information contained within bones is actual 'structure' information. In other words, what the overall skeleton looks like and what the relationship of all of the bones are to each other. Think about it... there's no point in opening a jaw bone if it also makes the left leg move back. Then again, you don't want to turn your head without your eyes turning with it. We are talking about the hierarchical structure. This is not just to do with bones, but without a good working knowledge of hierarchical structures, you'll find bones impossible to control. It all sounds very daunting, but it's not. Once you've learned the basics, it becomes second nature.

It works in exactly the same way as the file structure of AmigaDOS. First you have the hard drive (person). Then you have five main directories; art (leg), files (leg), office (arm), utilities (arm) and Workbench (head). Inside these main directories are further directories, which may contain even more directories. When you move a directory, all the directories contained within it will also move.

Parental guidance

This is the same of 3D hierarchies. There must be a main 'parent' object, that all other elements or 'children' are attached to (otherwise, how would you move the whole object around?). To this parent you connect your child objects – for example, a body – then to this you add more children such as legs and arms. As you can see, once you have determined which object is the main parent, each level on the hierarchy becomes a new parent (or set of parents) to children below it, while at the same time, being a child to the parent above it.

When you build 3D models, you should really plan them out hierarchically before you start. This is especially true when using bones. If you don't connect them in a proper hierarchy, then you are going to have some very interesting animations, a bit like when Jeff Goldblum goes into the pod at the end of The Fly.

Dinoverse is essentially a collection of Dinosaur models for Imagine 3.0, that have had bones and textures added to them and are ready to be animated. Imagine uses a technique called States to animate objects like this, the use of which is explained reasonably well in the manual. As long as you are happy with States in Imagine, then the rest should be pretty easy.

Learning curve

The supplied tutorials help you through the fiddly process of setting up and adjusting the States. This is the means by which Imagine 3.x alters the attributes and shapes of objects over time. It can also be used to store many different 'positions' or actions within one object. For example, a dinosaur could have walking, running, eating and falling-over positions all contained in the same object, ready for use at any time.

The dinosaur objects are actually pretty good, with hand-drawn image maps for their bodies. Add to this a collection of landscape, tree and sky objects, all with their own image maps and consider the excellent price, and you have a complete collection.

The only thing I would like to change in Dinoverse is the object format; I'd like it to be LightWave please. If there are just a few things keeping the Amiga afloat, then LightWave is one of them. Apparently, a LightWave-format Dinoverse may be a possibility, as long as the Imagine version sells well. I hope it does. ■

Dinoverse

Price:	£24.99
Supplier:	Kryonix
Contact:	6 Kingsnorth Gardens, Folkestone, Kent CT20 2QW.

Verdict: 81%



Several very realistic landscapes are included in Dinoverse.

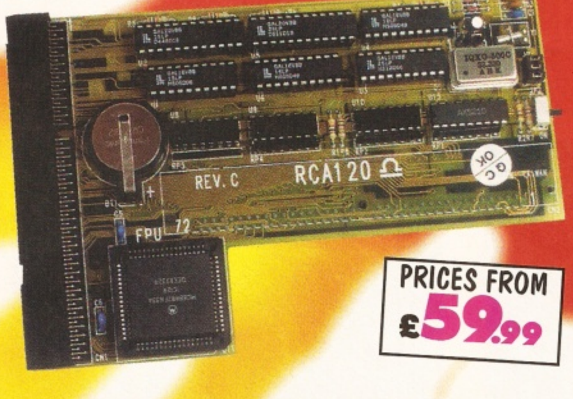


Those Jurassic Park dinos were far too scary. These are much more approachable!



"On my head, son. On my head..." Another example of an early form of leisure.

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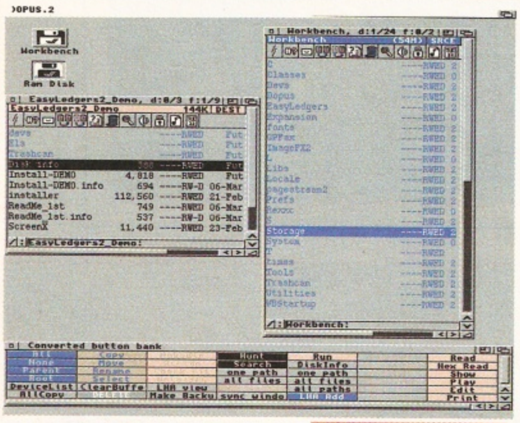
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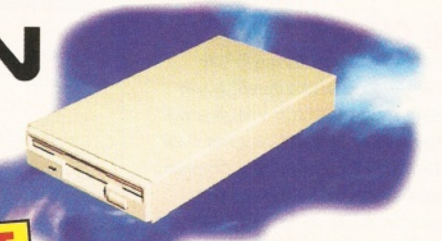
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Blizzard 1230-IV



Adding go-faster stripes to your Amiga may satisfy some. But for real speed you need the Blizzard IV. **Graeme Sandiford** *takes it for a spin.*

The computer market is a fascinating field to work in and several economics and psychological papers could be written on just one aspect of it – the near-irresistible drive to add faster and bigger components to your machine. I must admit that men are usually more susceptible to this, perhaps we have an additional electronic-consumption gene. Well, whatever the reason, most A1200 owners are probably sitting in a pool of their own saliva as a result of our picture of the Blizzard IV.

The Blizzard boards have a long history as being one of the most popular accelerator range. This is due as much to their excellent record of reliability as it is to their blistering performance. It seems that not long ago the Blizzard III came out; smaller, faster and more efficient than its predecessor. Yet Phase 5 have managed to do the same again because the Blizzard IV is faster and smaller than the mark III.

High performance

You may be wondering why a large number of your fellow Amiga users are willing to spend well over £200 of their hard-earned cash on a funny-shaped piece of plastic and silicon. Well, the most obvious reason is the increased performance that is gained. The Blizzard is a 68030-based accelerator with the option of an FPU. This means that your CPU itself is upgraded rather than just having a helping hand from a FPU-equipped RAM expansion. Both the CPU and FPU are clocked at 50MHz – bear in mind that this is their legitimate speed because there is no clock-doubling involved.

> "The Blizzard IV is **faster** and smaller than the mark III."



The board also has room for adding a SCSI interface which should be ready before the end of 1995. This is one of the most important considerations that needs to be taken into account when deciding on an upgrade path for your 1200. If your accelerator board is not equipped with a SCSI interface and you later decide to add a SCSI peripheral you will have to either use the PCMCIA port with a Squirrel or the internal IDE interface through the DataFlyer. Both of these options are 16-bit while the Blizzard SCSI option is 32-bit and therefore much quicker.

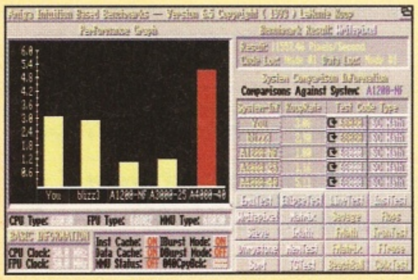
Those are the main advantages to adding a Blizzard IV board, but what is the actual difference in performance compared with the Blizzard III? To get the full low-down have a look at the speed comparison table. There is only a marginal improvement in speed and mostly in the non-graphics related benchmarks. You should bear in mind that you will have to pay for an FPU (not to mention the RAM).

If you already have a Blizzard III you probably wouldn't notice the difference in performance. If you don't have an accelerator already then this is the one you should go for, unless you are going to take the leap from the 68020 to 68040 or 68060 – but that's another story…

Benchmark results

For the techies out there, here are the Intuition-based results from AIBB. Note that the tests were performed using 68020-optimised code.

Test name	Blizzard 3	Blizzard 4	A4000-40
FMath	5.03	5.27	9.36
Dhyrstones	5.66	6.10	9.34
Savage	4.69	5.14	7.01
Line	1.10	1.11	1.09



Blizzard 1230-IV

Price: £179.95 (bare board)
Supplier: Gordon Harwoods
Contact: 01773 836781
Verdict: 91%

Wordworth 5 compo

We have another unmissable competition this month – five readers can win a copy of Wordworth 5. It could be you!

Digita is celebrating the launch of Wordworth 5 by giving away five copies to Amiga Shopper readers. Wordworth 5 will cost £79.99 and will be available in January 1996. Amiga Shopper awarded Wordworth 3.1(R2) 90 per cent and a Star buy in our WP/DTP feature last month, so Wordworth 5's new features should earn it an even better score when we give it a full review.

In the meantime, just answer the five simple questions below and you could win a copy of Wordworth 5. Call Digita on ☎ 01395 270273 for more details.

The questions

1. Name five of the seven Wonders of the Ancient World.
2. Name the youngest member of Jackson 5.
3. Name the fifth word in the International Phonetic Alphabet.
4. Name the author of the Famous Five series.
5. What did my true love send to me on the fifth day of Christmas?

How to enter

1. Write your answers to the five questions above on a postcard – or the back of a sealed envelope – and send them in to:

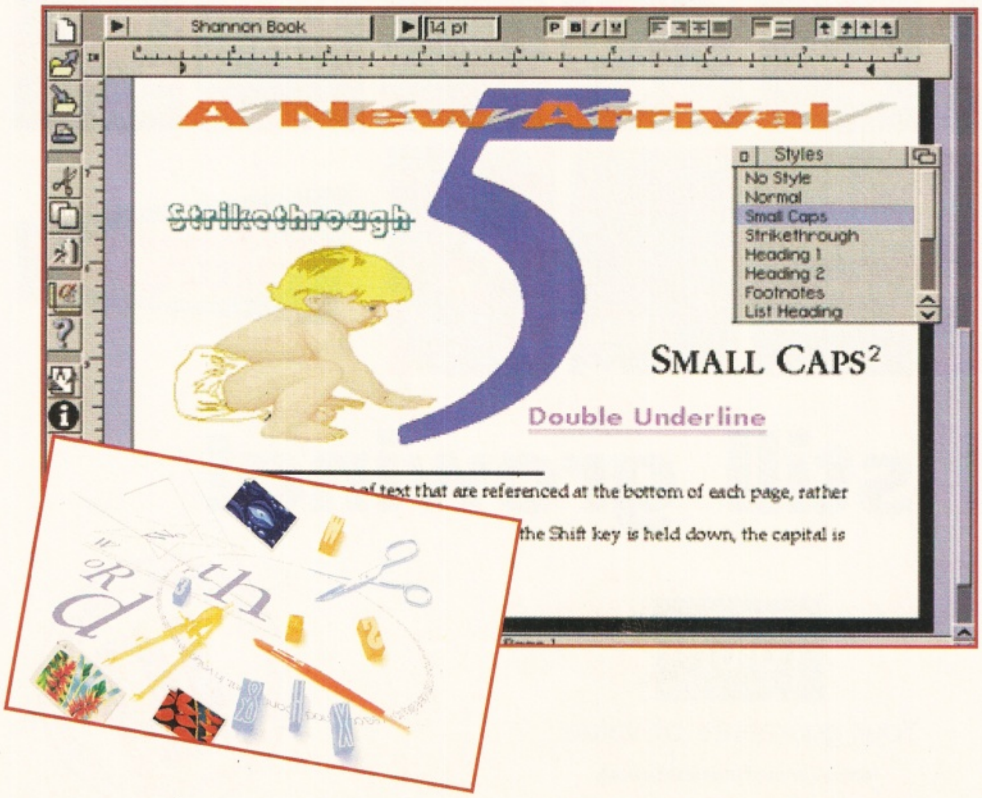
Wordworth 5 Competition,
Amiga Shopper,
30 Monmouth Street,
Bath BA1 2BW.

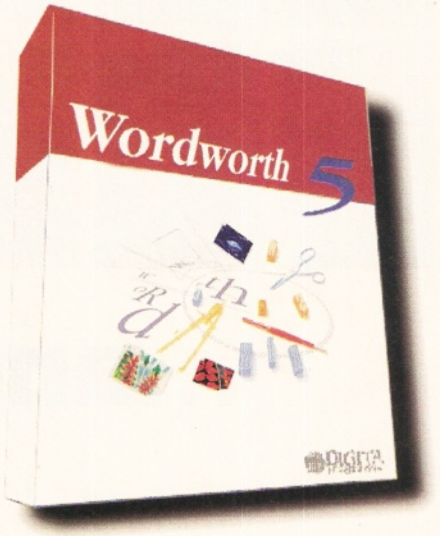
The closing date for the competition is Tuesday, 12th December 1995.

The rules

1. All entries to this compo must be received by the closing date.
2. Only one entry is allowed per person.
3. Employees of Future Publishing or Digita International aren't allowed to enter.
4. The Editor's decision is final.

> "Wordworth 5's new **features** should earn it an even better score."





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Demo Maniac

As Amiga Format's PD expert, **Steve McGill** *reviews loads of demos. But what does he make of this demo creation program?*

You may think that a program like Demo Maniac is a waste of time. Anyone familiar with the demo scene on the Amiga knows that it is populated with elitists who sneer at the slightest mention of lamers. Lamers, as if you need telling, are people unable to code, write music, or create great works of art proficiently.

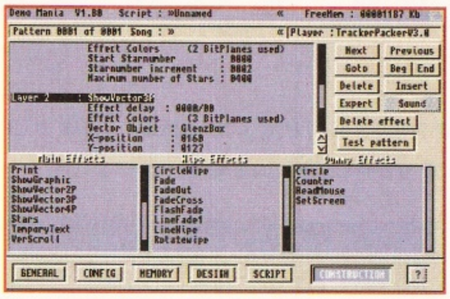
Demo Maniac is for lamers. But that stigma shouldn't put you off. Because, aside from being an easy-to-use program, Demo Maniac could also be used to piece together some attractive video demonstrations. These could run in a shop to attract attention to the new Amigas, or inform the public of various special offers – whatever use the user opts to put their demo creations to.

But, in order to acquaint yourself with the power of Demo Maniac, you have to understand the concept of layering and modules.

Building blocks

The program builds its effects up using layers in the Construction editor screen. Most of the work involved here concerns clicking on a layer, choosing an effect for that layer, and once chosen, manipulating the parameters that make up the various actions of that effect.

For example, one of the simplest (and cliched) demo effects is the star field. Demo Maniac lets you choose the number of stars that make up the star field, how quickly the number of stars rise, and the maximum number of stars on screen at one time. These can be user-selected and manipulated from the Construction editor and can even be manipulated from a user-created script while the demo's running. If this sounds too much like programming, don't worry, you'll be able to tackle it when you're more proficient with the program.



Insertion of effects into the different layers is simple and easy from this well designed screen.

The star field example is only one layer of the pattern list. There are six layers in all, and each of them can contain any effect you want. So, in effect, you can build up complex, individualistic patterns with a few clicks of the mouse and jiggery pokery with the effect parameters within each layer.



Animations can add a load of zing to demos. Just watch that bit plane usage.

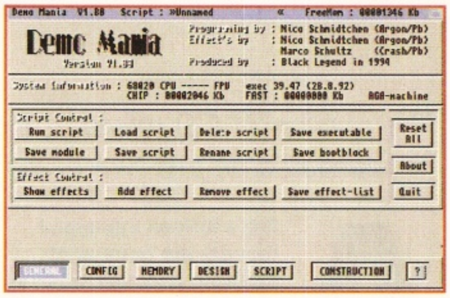
Hot and spicy

To add spice and panache to your presentation, various text files can be added in almost any font you choose. System fonts can't be used yet, but Black Legend have promised that there will be a convertor ready soon.

Like all effects, the way the text appears on screen is affected by various parameters. Messages like "Hello Mum", "Amiga Magic £399", and "Only One Team In Ayrshire" need never appear boring again.

One of the staples of any decent demo is the music. Again, Demo Maniac turns up trumps in this department. 99.9 per cent of demo music is created using ProTracker. The downside to this program is that there are loads of versions of it. Demo Maniac makes allowance for this and provides a strong selection to choose from.

Included is TrackerPacker, a player which lets you play packed modules (best packed with Power Packer). This helps conserve memory and disk space when the demo is ready to be assembled. It's probably most convenient to convert modules to be played by Tracker Packer.



The main control system takes care of all of those miscellaneous essentials required.

To prove how simple these elements are to use and assemble, within 10 minutes of loading the program and reading the manual, we had what looked like a simple demo up and running – including some tinkly bonk music. And that was only from one pattern.

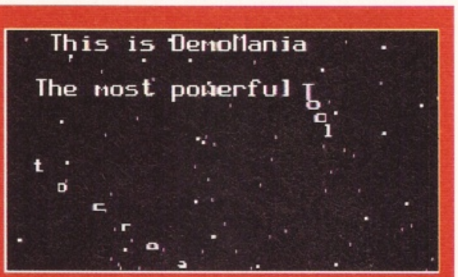
Once satisfied with a pattern, you will be inspired to create another and another. Part of the joy of Demo Maniac is the ease with which everything can be changed around or re-ordered – even the order in which the layers are displayed on screen can add wild and exciting effects.

But eventually, the challenge of creating a complete, choreographed demo, with a beginning, a middle and an end becomes too strong and you find yourself moving along and seeking out the commands, or script, that lets you string all of the patterns together and decide their playing order.

Again, starting off simply is the order of the day. But as familiarity and confidence grow, the various parameters and variables that can be affected and manipulated soon see you picturing rifts in your head. And it's then that demo creation can become worryingly absorbing.

The real beauty of Demo Maniac though, is that it'll run on all Amigas of 1.3 and above, including AGA, so everyone will be able to try their hand. Thoroughly commendable, and we've got no qualms about recommending Demo Maniac to anyone who wants to tinker with the inherent power of their machine. ■

"The **beauty** of Demo Maniac is that it'll run on all Amigas of 1.3+."



Text effects and starfields are hardly de rigeur these days, but they could attract new users.

Demo Maniac

Price:	£14.99
Supplier:	Kompart
Contact:	01438 840004

Verdict: 80%

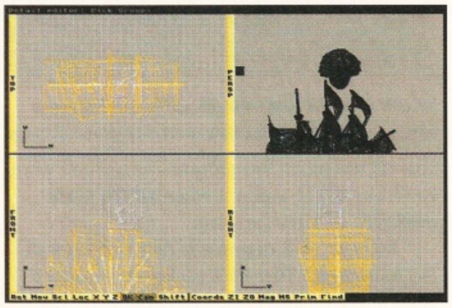
CD check out

The number of CD releases is once more on the increase. This month, though, **David Taylor** *concentrates on just two of the more interesting releases.*

After a furious Summer, I thought the barrage of CD-ROM releases might let up, but how wrong I was. Here we are in the Christmas issue and there are quite a few of them stuffed in my stocking. From them all, two evoked my interest most, so I will concentrate on these.

The Global Amiga Experience

This disc is different from others, in that it contains six full-price applications. On here are Scala 1.13, Vista Pro 1, Distant Suns 4, ClariSSA 1.1, The Edge 1.72 and Imagine 2.0. This is just the tip of the iceberg though, because the rest of the disk is full of demos of commercial programs – in fact there's a demo of just about every program I've seen. That's what this disc is for – testing out software and seeing whether you want to get the full product.



The full Imagine 2 program is a big plus.

Most of the full programs have been on magazine Coverdisks and so have a lot of the demos, but if you missed them, then here's a chance to save lots of cash – especially as there are exclusive upgrade offers for you. If you're after a program, this disc lets you browse the ones available to find the one that suits your needs. The CD could have been better ordered and presented, it's a pain trying to find the program you want, but it's great value for money.

There's no room to go into the details of the full commercial programs, but you should have heard of them anyway, and the number of demos is too high to even begin to tell you. Some of the demos are of pretty obscure programs – some are only available in a foreign language, but the majority of big name programs are here too. If you're looking for a specific demo, check with the distributor before buying.

Global Amiga

Price: £24.99
Supplier: PD Soft
Contact: 01702 466933
Verdict: 92% Star buy

Phase 1

Putting together a CD, or disk for that matter, is not just a case of getting a set of great programs. They have to be ordered and presented in a reasonable fashion. Our Coverdisks, for example, have everything split into sections and are as tidy as possible (or certainly less untidy than possible!). A CD which has tonnes of good stuff can be ruined by a rushed appearance. Phase 1 has loads of good stuff and has been compiled in such a way that finding your way around is easy and taking a look at previews is simple. I apologise now for not being able to mention every single file on here, because there are just too many.

The CD is basically split into two parts – programs and data. The programs include PD utilities, demos of a couple of commercial products and update patches for some programs. The commercial demos are of PageStream 2 and TypeSmith 2.5; the updates are for those programs, OpalVision 2.3b and PageStream 3. Phase 1 is aimed quite extensively at DTP users.

The PD utilities are a select number of some of the best utilities. There's Final Wrapper, which was included on last month's Coverdisk, and is essential for Final Writer owners. There are several other programs with DTP for viewing PostScript files and various font types. There are also some of the all-time "greats": SysInfo, SuperDuper, ARQ, etc.

One that I think is pretty useful is DrawMap, which is old, but does the job, creating a picture of the world, which you can save out as an IFF for use in a document. The program has different options for the type of map you want – flat or wrapped round a globe and can add text and fill sections. It's ideal for illustrations for your projects.



Phase 1 is a professionally compiled CD with useful data and some nice utilities.

The data files take up the best part of the CD. These files are split into many subgroups, with each part having an easy to follow hierarchy of files.

The fonts are split into four types: CompuGraphic, Clipfonts, Prodraw and Type 1. Each font has a preview IFF file, which makes it as easy as possible to see whether that's the font you want before copying it into your Fonts: directory. I had one little problem with a couple of the previews refusing to show when I double-clicked, but there was no reason for this and I could see them easily using one of my own viewers. It's a comprehensive selection, but people with a fonts CD already may find they are duplicating some files.

There's a selection of black and white and colour clipart which is well ordered and select enough to retain a decent quality. The image library is also of good quality and whilst neither of these sections is comprehensive in its coverage (even a CD can't hold every single picture ever taken), they hold a diverse selection from bats to angry men (probably annoyed at having their picture taken).

Whilst the programs may be aimed at DTP, the data which takes up over 600Mb and comprises the majority of the disk, makes the CD ideal for DTP and DTV users. This is a very useful CD. We've seen others like it before, but few have been as well polished and presented.

Phase 1

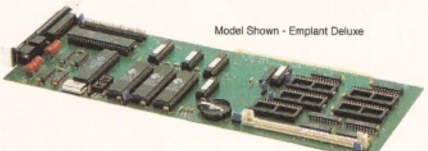
Price: £24.99
Supplier: EMC Computergraphic
Contact: 01225 431389
Verdict: 90% Star buy

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MAINACTOR PROFESSIONAL	£ 49.95

Liana

Liana is the ideal solution for a quick, easy yet efficient connection between any two Amiga`s. Simply plug the special cable into the parallel port and install the **Envoy** software. The software offers FileSystem import and export, network printing and multi-user support. The Liana network driver is completely SANA-II compatible.

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Ariadne

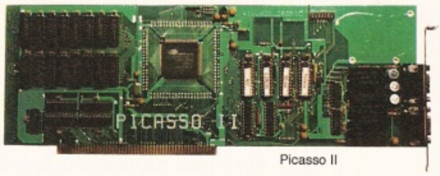
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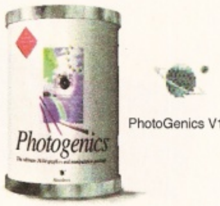
ARIADNE	£219.95

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CD ROM 2

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LIGHT ROM 3	£39.95

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WCS requires OS 2.04 or greater, 4 Mb RAM (8 Mb recommended). Both 68030 and '040 optimised versions are supplied.

WORLD CONSTRUCTION SET	£119.95

Doubler 4000/40

The Doubler 4000 50 MHz 68040 accelerator delivers across-the-board speed increases for all applications and system functions, translating into a significant productivity gain. This powerful "plug and play" accelerator is 100% hardware and software compatible, since it still uses a Motorola 68040 processor. The Doubler 4000 includes an on-chip math co-processor, and will dramatically speed up any application - such as rendering - that depends on calculations. SysInfo reports and increase from 18.76 MIPS of the standard A4000 to 37.72 MIPS with the Doubler installed! An integral cooling system ensures that the Doubler 4000 runs cooler and more reliably at 50 MHz than the original processor.



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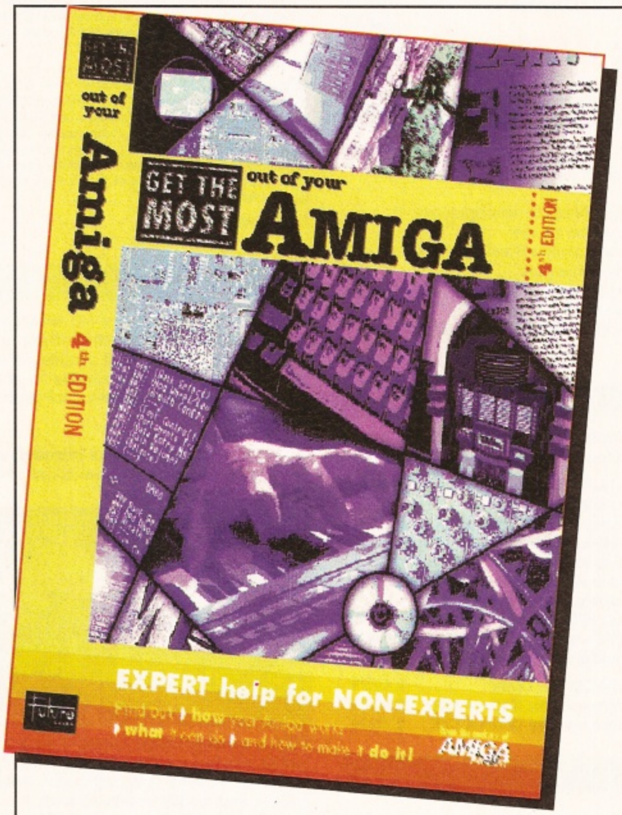
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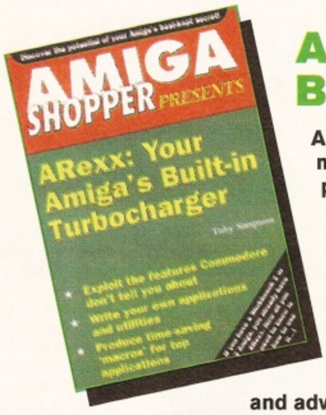
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Section A gives you the low down on how your Amiga works, including all the hardware and software. There's even a glossary covering all the terms that you're likely to come across.

What your Amiga can do
Section B helps you to explore in depth the myriad of possible uses for your Amiga; DTP, Comms, programming, Amiga games, music, graphics and multimedia. Again, there's a full glossary at the end of the section to ensure that you are familiar with all the technical terms.

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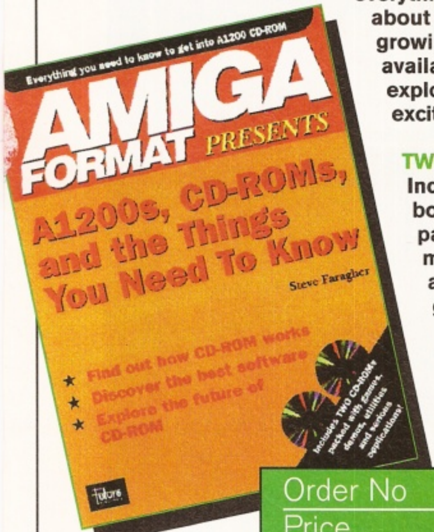
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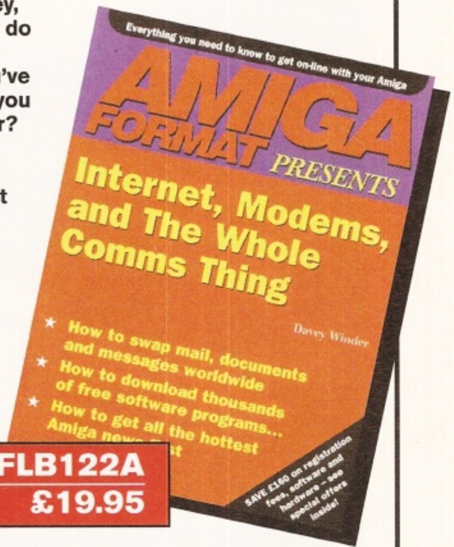
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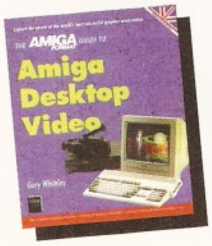
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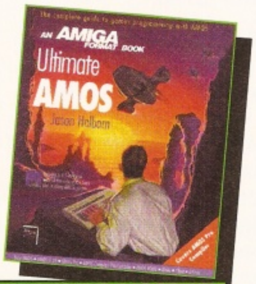
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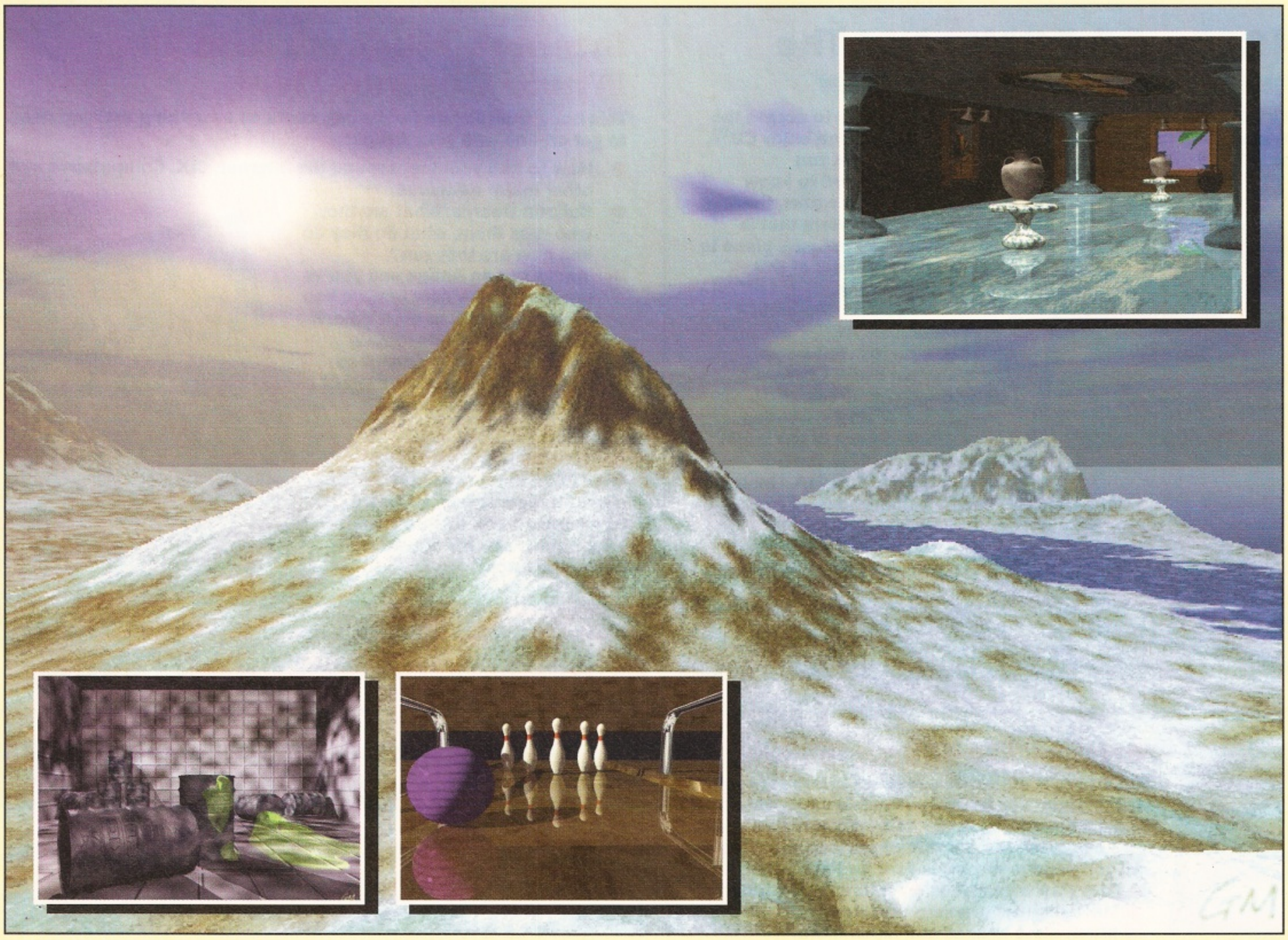
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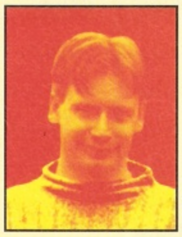
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ASHP57



Gary Moffat produced these great LightWave and Vista Pro images on an Amiga 4000/030 with 25MHz FPU and 14Mb RAM. Remember, even if your picture doesn't win, you may still see yourself in lights because we try and use your efforts elsewhere in the mag. If you want to win £25, send your picture as a JPEG to:
David Taylor, Future Publishing, 30 Monmouth St, Bath BA1 2BW.



Unfortunately, the problem that I get asked about most often is caused by laziness. Whether it's because of a virus or due to a mistake on the user's part, a back-up of that all-important disk would solve so many problems. To emphasise some of the answers to this month's problems, here's a plea – make sure you back up important disks, especially your Workbench ones. Well, if you're wondering what I'm talking about, read on and learn from the follies of others...



Paul Overaa is our Operating Systems programming expert. He has written several books, including: Mastering Amiga Assembler, Mastering Amiga ARexx and Mastering Amiga C. His main interest is in program design and he is heavily into the music side of the Amiga. Paul's other interests include red wine, maths and wind-surfing!



Gary Whiteley is our expert on video and graphics. He regularly produces work for films and TV. Gary has also written books – amongst them is Amiga Desktop Video, published by Future Publishing (see page 50 to order a copy). Gary also regularly reviews new products for Amiga Shopper, including the review of Imagine 3.3 in issue 56.



John Kennedy is our hardware and music expert. John has written supertests and features alike for Amiga Shopper in the past, including the CD-ROM Supertest in issue 49 and our monitor Supertest in issue 55. He has used his multiple talents to put together the multimedia feature this month, which starts on page 28.



Larry Hickmott is our DTP and word processing expert. He produces his own DTP magazine called Em and has written several books on his favourite topic. He has recently finished a book called The Wordworth Companion for Digita and Future Publishing's books division. Larry has written both the Final Calc review on page 34 and the DTP tutorial this month.

AMIGA SHOPPER

There's a lot of you out there who seem to be in a bit of a fix this month – from problems with PageSetter to victims of viruses. We hope these pages will help sort you out, and there may be others who are stuck in the same spot, but didn't get around to writing.

Scanning question

Buying

I am thinking of upgrading my Power black and white hand scanner to the Epson Colour flatbed scanner and to a better printer. Please help.

1) I have read that the Epson flatbed scanner is an excellent machine, but the software supplied with it lets it down. What software could I buy that will do the same job?

2) How much memory will I need to scan an A4 colour picture?

3) My Power scanner has a printer pass-through so that both my printer and scanner can be plugged into the same port. Has the Epson flatbed got a through port? If not, how can this be done?

4) I would like to get better black and white prints but can't decide on a bubblejet or a laser.

Answers contents

If you are looking for a particular problem, why not use this handy index, arranged by topic, to find the questions which concern you.

It's not the purchase price, but the running cost that worries me.

D Noble
Luton

1) I have had many Epson scanners hooked up to my A1200 and have been impressed by them all. You say the software that comes with them is not very good. What software? In most cases, you don't get any Amiga software



included. You may get Powerscan 4 Professional if you buy one through Power Computing, but you would need to check with them. I use a third party program called ImageFX 2.1 and although the scanning software isn't as good as that on the PC or Macintosh, it still works well.

The only problem with scanning software on the Amiga is that, unlike the PC, we don't have TWAIN drivers which enable you to scan images from any TWAIN-compatible application. Yet, unless you get a taste for it, like I have on my PC, it won't bother you. I can especially recommend the Epson 9000. It's really wonderful and received a Star buy award in the scanner Supertest in AS52.

2) As for memory, you'll need plenty of it to scan colour pictures. Scanning an A4 sheet with 6Mb of memory is possible, but only at a low resolution of, say, 75dpi. If you want to scan an A4 sheet at 300dpi, then you need a lot more memory than that in your Amiga. The important thing to remember is, if you are scanning photographic material, you don't need to scan at any more than 100dpi for printing on a desktop printer. Only line art needs to be scanned at high resolution, preferably at a resolution that matches your printer.

3) The Epson attaches to the Amiga using a special type of parallel cable. There's no interface like there is with a hand scanner, so you won't get a through port. I use a switch box, but there are, I'm told, dangers in this depending on what printer you use, etc. Another solution is to run a cable around the front of the Amiga but this still means you need to switch off your Amiga to swap cables every time you want to do some scanning. That's one of the advantages of the boxed Amigas because with them, you can add more parallel ports.

4) For black and white only printing, I would recommend a laser. The new 5L from Hewlett-Packard looks very good and as far as the running costs between lasers and inkjets go, they probably work out pretty close. An ink cartridge may be cheaper to replace, but it won't produce as many prints as you will get with a toner cartridge. Lasers also let you run off many copies.

On the plus side for the inkjet, is the fact that you can print in colour at a fraction of the cost you can with a laser. The bottom line, as always, lies in what you want to do. If you do jobs where you are running off lots of copies, then choose a laser. If you only do the odd letter, an inkjet is fine. One of the main reasons I chose lasers, was because I could get ones with postscript. You don't see many postscript inkjets and I couldn't live without a postscript printer. ***Larry***

PageSetter blues

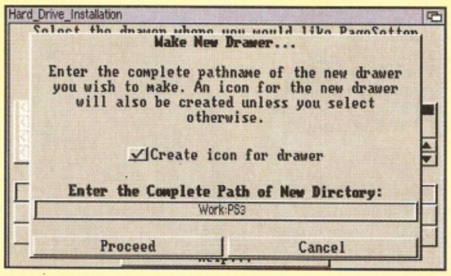
Software

After buying PageSetter 3, I turned on my Amiga and proceeded to install the program. When I ran it and looked in the Type/Typeface requester, it displayed all my new font names, but when I selected one of them, the result was a font on-screen that looked like Topaz. It says in the instructions, run the CG_Update program, but this was not in the window or in any of the drawers within PageSetter 3's window.

So, I thought I'll re-install it. But the drawer would not delete with the message saying, "Drawer in use". I then made a new drawer and re-installed PageSetter 3, but this too proved unsuccessful. I now have two drawers I cannot delete despite the icons saying these are not protected from deletion. Please help me.

Mike J Lancaster
North Yorkshire

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A new drawer for PageSetter 3 can be created during installation.

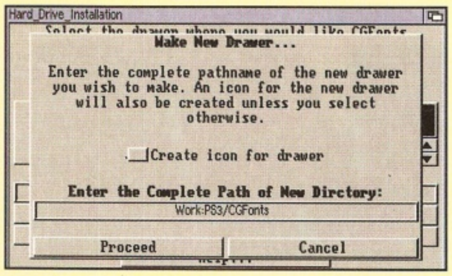
Using a computer can sometimes be very frustrating. I can understand how confusing it is for you, but there are some simple explanations which we'll work through here.

Installing PageSetter 3 on to a hard drive should be fairly straightforward. I have heard that there were a number of different install scripts, but the one I used while writing this answer proved to be no problem. If after trying this solution, you still don't get any joy, send me your registration number and three new blank disks, and we'll update your disks. Our address is, LH Publishing, 13 Gairloch Ave, Bletchley MK2 3DH.

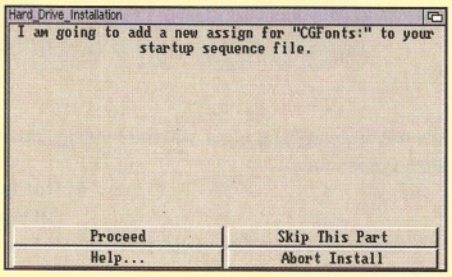
Now let's get this sucker solved. Before you follow the instructions for installing PageSetter 3, make sure you remove it from your hard drive. To do this you need to remove some assigns from your User-StartUp. First things first though, always back-up any files you are working on in case disaster strikes.

Look for an assign in your User-StartUp that reads "Assign CGFonts: Work:PageSetter_3" and delete it before saving your User-StartUp. This assign may look different if you chose a name other than "PageSetter_3 for PageSetter 3's drawer". When done, reset your Amiga.

The reason for removing the PageSetter 3 and CGFonts assign commands is because



Create a new drawer when installating CGFonts if PageSetter 3 doesn't make one for you.



Make sure an assign is made for CGFonts. Click on Proceed and the installer will do all the work.

they are one of two possible reasons you can't remove PageSetter 3 from your hard drive. The other reason – a highly unlikely one – is that the file has been protected (using the Protect command). An easy way to check the protection status of a file, is to use a program such as Opus. There's a button called Protect which enables you to turn on and off a file's flags, including the one that lets you delete a file.

Now delete the drawers for both PageSetter's. You might like to also remove all the files in the S and Libs drawers that have anything to do with PageSetter 3. If you don't get them all or are unsure about which ones they are, don't worry, because the reinstall process should overwrite them.

Stick "PageSetter 3 Disk 1" in a drive and proceed to install all the items. A few points you may need to know about the procedure: When you get asked where you would like PageSetter 3 copied to, a new drawer for PageSetter can be created by the Installer when you click on "Make New Drawer".

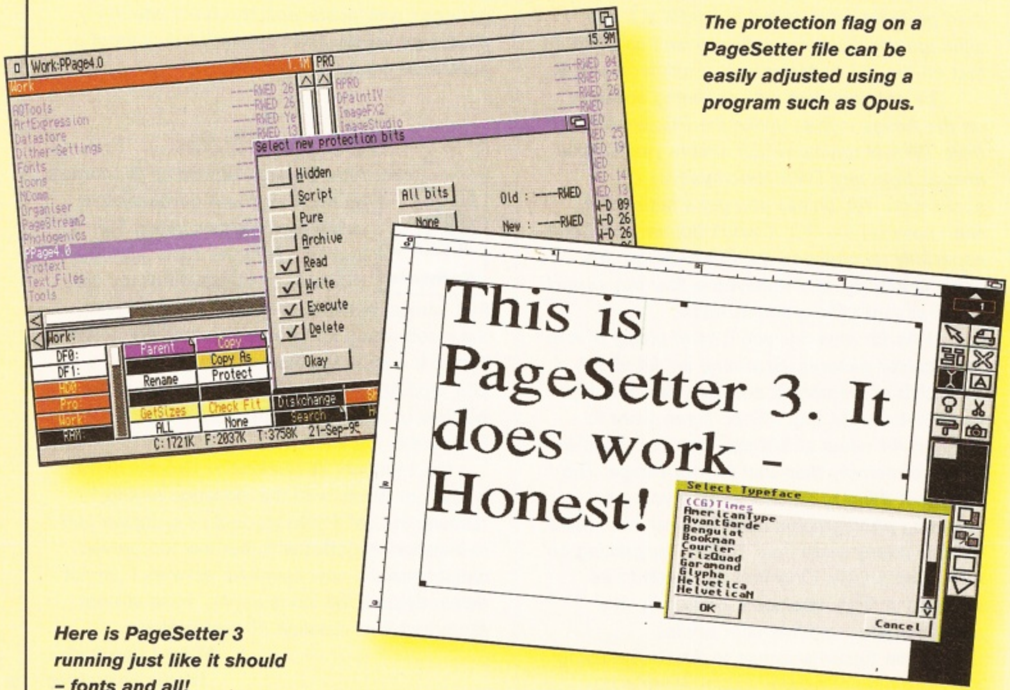
After all this, you will be asked some questions about where you want various files. One of these questions is: "Where do you want CGFonts?" In the case of the version I used, I had to click on "Make New Drawer", call the new drawer CGFonts, and then proceed with the install.

After you do that, the installer should tell you it's going to add an assign for CGFonts. Click Proceed. After that, you click Proceed on all the questions about installing different programs within the PageSetter 3 drawer.

Once PageSetter 3 has been installed, reset your Amiga and run the program. If you now go and create a box and type some text into it, you should see your text on-screen in a font that resembles CGTimes. You can check that by choosing Type/Typeface and you'll notice CGTimes is ticked.

That's all there is to it. When you want to add more fonts, simply copy the files that end with the extension ".lib", ".metric" and ".dat", into CGFonts. Then run CG_Update, which should be in the PageSetter 3 drawer. If it isn't, you will find it on disk 2. Copy into PageSetter's drawer using Workbench or a file manager.

The last thing I want to point out is that you mention problems with a font called Bizarro. This is a known problem font. It works for some people, not for others. After you install a number of fonts, make sure you run CG_Update, because if you don't, the fonts will not be recognised. I hope that solves that problem once and for all! ***Larry***



The protection flag on a PageSetter file can be easily adjusted using a program such as Opus.

Here is PageSetter 3 running just like it should – fonts and all!

Twinkle in your eye

In AS54, in a reply to Gary Bryant about Imagine 3's missing LensFlar.itx texture, I answered that it appeared to have been left out of the program. I've since discovered that this is not actually the case, but that the texture has been renamed as Twinkle.itx, presumably to avoid confusing it with the LensFlar.ifx global effect as used from the Action Editor.

It appears that Impulse have chosen not to document this change, however, so the answer I gave at the time was based on the knowledge available to me. But now we all know better. Thanks also to Matthew Griffiths, Ben Timmermans and Graham Stevenson who wrote to point this out to me.

Matthew Griffiths has also provided the following information regarding Imagine's Lites textures: "I have been using the Lights textures since I bought Imagine 3 and, after some initial troubles, I have not had any problems with them since.

The problem seems to lie with the fact that a solid light source object is created in the Detail Editor instead of an invisible light source like those available in the Stage Editor. Rather than creating a sphere in the Detail

Editor, then turning it into a light object, try using just an axis (from the Object/Add/Axis menu). A solid light-emitting object can cause problems when using shadow-casting, because the light then cannot penetrate the faces of an object. Most of the Light textures will work with a spherical (point) light source, but can produce unpredictable results, so it's best to avoid using them. You should use either a "Round Shape (X)" or "Rectangular Shape (X,Z)" by selecting the appropriate check-box. You can use either Parallel Beams or Point Source (diverging beams).

Now comes the important part; the size of the light is determined by the sizes of the axes. As described in the manual, the Y axis determines the approximate range of the light. With "Round Shape (X)" lights, the size of the X axis determines the radius of the light at the tip of the Y axis (the Z axis is not used in this case). A similar thing applies to the "Rectangular Shape (X,Z)" lights, but the size and shape of the light is determined by the X and Z axes. When a Light texture is applied to either of these lights they should work properly (though they can be rather inaccurate on Detail Editor quick renders; check them in the Stage Editor for greater accuracy).

*Obviously, some textures work better on rectangular lights, and others work better on round lights. The "SoftEdge.itx" looks good for an overhead spotlight (or similar) when used with a round light, and window textures, such as "Venitian.itx" and "FrnchWin.itx" look much better on rectangular lights. I hope that's cleared it up a bit." **Gary***

Morphing crazy

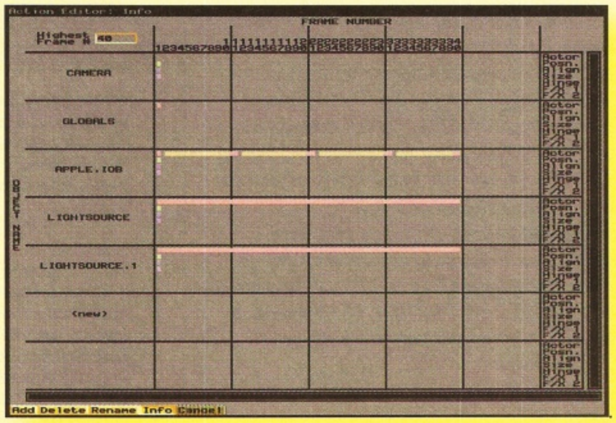
I own Imagine 2 and have recently been trying out the Amiga Format tutorials. My problem is with the morphing tutorial (AF57, March '94). I've followed the instructions to the letter, but when I try the wireframe render the fruit refuse to morph. Instead, each fruit is displayed for a certain length of time and then replaced with the next fruit. What's wrong?

Chris Howlett
Troon, Ayrshire

Well, I followed Brian's morphing tutorial to the letter myself (using Imagine 2, though I use Imagine 3 nowadays) and I had no problems whatsoever. So I guess you must be doing something wrong.

The most obvious error you may be making is that you haven't set up any transition frames in the Action Editor, which would account for the cut effect that you're getting, rather than the desired morph. Take a look at the Action Editor grab pictured above and you'll see that there are two colours in the Actor line for Apple.iob. The first colour, red, is what you would normally see if the object wasn't making any kind of transition. The orange section between two red frames denotes that the first object (that is, the apple) will morph into the second object (the banana) over nine frames. The same is true for the other transitions. I suspect that you've forgotten to set the transition count when you added the objects.

Morphing objects in Imagine requires transitions to be made in the Action Editor.



You can easily fix this in the Action Editor by selecting the Info button, then clicking on each object's Actor line and changing the transition count at the bottom of the requester.

*Another problem might be that you've given each object its own time line. This won't work for morphing, and the result would also be the kind of display/replace sequence you are getting. Read the tutorial again, try to follow it, and you should get the results you're looking for, bearing in mind the above advice. **Gary***

Flipping animations!

I have created many animation frames using AMOS and Imagine. What I need is a program that will piece all the frames together to create an animation.

It is very painstaking to manually load each individual frame into DPaint, and this becomes even worse with the Imagine frames because I have to convert each 24-bit frame into DPaint, then select <Color/Palette/Restore Palette> and then <Color/Remap> for each frame I load. I cannot use Imagine's Lock Palette function because DPaint converts and naturally chooses its own colour palette when loading in 24-bit files into the screenmode I use, which is HAM8.

Are there any programs that will take all the hard work out of this operation? I imagine such a program would search for the numerical order of the file name (for example, Pic001, Pic002) and make the whole animation from all the files. Maybe an ARexx script could achieve this?

Daniel White
Finchley, London

I'll have to assume some things about your Amiga system, Daniel, since you've provided no information for me to go on. The best approach to your problem is to buy Art Department Professional and ProCONTROL to go with it because this combination takes all the hard work out of what you're trying to do. Art Department provides the processing power and ProCONTROL is a complementary program which provides direct access to ADPro and enables sequenced processing to be carried out without the need to write ARexx scripts.

Using ProCONTROL and ADPro you can select a sequence of images, decide what format you want them converted to (in your case HAM8, though all Amiga resolutions are supported) and then compile them, one by one, into an animation. It's easy to use and takes all the drudgery out of the page-flipping process.

Of course, if you think you're up to it, you could always skip buying ProCONTROL and write your own ARexx scripts for ADPro – it isn't that hard – but I'd never go back to that route having used ProCONTROL. ADPro also has its own sequencing module, FRED, which can provide similar functions to ProCONTROL, though I've always found it to be a pain to use (which is why I switched to ProCONTROL) though other folks swear by FRED. I guess in the end it all comes down to personal choice.

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Sticky GIF files update

Thanks for your suggestions regarding my problems with loading GIF files from CD-ROM into Photogenics V1.2. I was about to send a couple of the offending files to Almathera when I discovered that the files now on floppy disk loaded perfectly.

The problem seems to be somewhere between the CD and Photogenics. It is also interesting to note that the cut down version of Photogenics on the Ten On Ten CD-ROMs from Almathera load GIF files OK, but in this case both the loader and the GIF files are all on the same CD.

Your suggestion (Answers, AS55) to load the files via ImageFX and save as IFF had occurred to me, but life's too short! Now I've narrowed the problem down to the CD-ROM area, it's much easier to transfer the files to hard disk as temporary files and then load them from there.

The mystery remains, however. Has anyone else had the same problems? Jolyon Ralph and Almathera seem to be as puzzled as me on this one.

C J Ward
Mickleover, Derby

It's certainly an odd one, but because you're loading the files in so that you can make changes and then save them, your solution of copying the files in the first place seems as good as any, since you'll have to save them to hard drive at some point. If anyone else has had similar problems, do let us know. *Dave.*

The only drawbacks are that using ADPro requires a lot of memory and if you don't have at least 4Mb (but preferably more) then your Amiga will struggle. Also, you have to buy ADPro and ProCONTROL which cost £139 and £50.95, respectively (try Emerald Creative, ☎ 0181 715 8866), but I can't think of a more straightforward solution and ADPro is a worthwhile addition to anyone's graphics toolkit. Undoubtedly there are other ways, including using ImageFX2, but for sheer ease of use the ADPro/ProCONTROL combination is the way I'd recommend you to go. ***Gary***

StartUp-Sequence nightmare

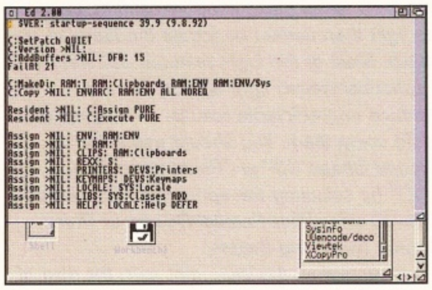
While trying to edit the StartUp-Sequence, I deleted a line which has resulted in my hard drive not starting up. All that appears is "C:Setpatch: file is not executable, C:Setpatch failed returncode 10". Please help!

S Hawkins
Liverpool

Well, a couple of things. Whenever you're making a change to Workbench, you should make sure that you've got a back-up copy before, especially if you're changing the StartUp-Sequence, which is the most important part! Secondly, why were you editing the StartUp-Sequence at all? You should be able to make any changes in the User-StartUp, which is there in order to stop this sort of problem occurring.

There should, with very few exceptions (such as Prepareemul and PowerXL), be nothing except the version line before Setpatch. Setpatch is simply a program that patches the system to make temporary updates. In other words, it's there to sort out very minor bugs that have appeared in the system since the hardware was manufactured. More importantly to you though, AmigaDOS appears to be telling you the problem and it isn't that the StartUp-Sequence is a problem, it's Setpatch itself.

For some reason, your Setpatch program, that is in your C: directory on your Workbench disk, is no longer an executable program. Either you have damaged the program or somehow reset the protection bits. If it's the former, you need to replace Setpatch with a new version from your original Workbench disk (or if you were working on that, try checking through other disks that have been designed for your version of Workbench and copy Setpatch from there – some commercial programs may have it – I know this won't be a problem for you because you were working on a hard drive, but it may help others).



Your StartUp-Sequence should look like this.

If you've reset the protection bits, you need to change them back. Boot a floppy Workbench and open a Shell. Type "list <harddrive name:>c/setpatch <return>". If it doesn't state "rwed", then type "protect <harddrive name:>c/setpatch +rwed".

This should solve the problem. If not, start looking for a Workbench disk. *Dave*

Stop the flicker

Please help! My problem is that I cannot get Imagine 3 out of Interlace mode. Previously, with Imagine 2, it would have been a case of changing the True/False setting for Interlace Editors in the Preferences/Misc. Stuff LACE settings but, although the Imagine 3 manual tells you this the LACE setting is nowhere to be found in Imagine 3's preferences!

Not being able to turn off Interlace is turning me off from using this product, which is a real shame as it took me months to save up for it and the Interlace is now doing my head in.

Why is the LACE setting now missing? Is Imagine 3 supposed to be like this, with no option for turning Interlace off in the Editors? If it is, is there anything else I can do about it?

David Howe
Denton, Manchester

Sorry David, it looks like you're out of luck here. It certainly appears that Impulse have removed the LACE setting from Imagine's Preferences/Misc. Stuff as of version 3, and it hasn't made it back into subsequent upgrade versions (at least as far as v3.3) either.

I can appreciate that you are having problems with the screen flicker caused by interlaced screens and, because of the way Imagine 3 now works, there's no way of getting a non-interlace screen (unless someone has worked out a hack for it). There are, however, a couple of things you could try which might help a little. The first is to edit Imagine's screen colours (again in Preferences/Misc. Stuff) to produce a softer, less flickery combination. The other is to wear sunglasses while you work! Yes, that's right – sunglasses. Not only will you look cool (well, maybe not) but they do actually help to cut down on the flicker.

A further alternative, though one which would require some more money – and probably more than you're prepared to spend – is to hook an SVGA-type monitor up to your A1200 so that you can work at a higher display rate and use a larger screen size to kill the flicker, but I guess that's beyond your means from what you say in your question.

You could try writing to Impulse (their address is in the manual) and plead with them to reinstate the Interlace option, but I think it is unlikely that they'll do it just for you, though I'd be happy to be proved wrong.

On the other hand, I've been working with interlaced screens for years now and they very rarely bother me. I very quickly got used to the flicker and, if anyone remarks that the screen jitters a lot, I usually can't see it unless I remember to look for it. But there are one or two programs I just can't stand using in interlace – so I do have a lot of sympathy for your plight – but unfortunately I don't have any other suggestions on how to get Imagine to work in non-interlace modes. ***Gary***

Amstrad connections

I wish to link my Amstrad NC200 Notebook to my Amiga 1200 via the serial port. I have a suitable connecting lead but I'm not sure what software is available, nor how to set it up. Do you have any suggestions?

Alan Martin
Kensington, London

The Amstrad NC200 does have a serial port but, as far as I know, there isn't the usual range of Comms software available for it.

But SCA Systems (☎ 01903 821128) do offer something called a Laplink which provides suitable Comms software (which I believe works at a baud rate of 4800). It comes with a PC connecting lead and costs £29. When you order, check with SCA systems that the serial lead you have prepared is actually suitable for use with their Laplink offering.

On the Amiga side, you need to either have a standard Comms package running (there are commercial packages like Termite, and PD offerings such as NComms and Term that would be suitable). But if you are just going to be copying files, then you may instead be able to use the Preferences program to set up the Amiga's serial port characteristics to match the Laplink specifications, and then copy or receive files via the Amiga's 'ser: serial device'.

For example, to send the file ram:test to the Amstrad you would open a Shell window and type:

```
copy ram:test to ser:
```

Whether this is possible will depend on how flexible the Laplink system is. It may, for instance, use a fixed error-checking protocol like XMODEM and so require a Comms package that supports the same protocol at the Amiga end.

If file copying is your only intended use, then serial-based file copying is unnecessary for transferring data between your two systems. The NC200 uses standard MSDOS-formatted disks, so nowadays you would be better off using the Amiga's CrossDOS utility to read and write files from the NC200 disks. ***Paul***

Blitz BASIC 2

I have a demo of Blitz BASIC 2 from the Internet and find it a good programming language. It seems that other people have also found it useful since there are some commercial games (Skidmarks, Guardian, Super Tennis Champs, Blitz Bombers, even Gloom) which have been developed using Blitz Tools.

Do you know where I can find a copy? There are other programming languages available but I do not want to use C or Assembler quite yet. Without Blitz, what other alternatives do aspiring new programmers have other than AMOS?

Paul Webb
Penarth, South Glamorgan

To the best of my knowledge Blitz BASIC 2 is no longer in production and none of the Amiga software suppliers I contacted had any copies available. It is just possible that one or two retailers might have copies lying around but even if you found one I would be wary of basing any software development on an environment that, to all intents and purposes, would seem to be dead.

AMOS is the obvious alternative, but this is another package for which development has stopped. [See the News pages for more information on AMOS – Ed.] *The advantage that AMOS has over Blitz, however, is that it has a large user base with relatively strong user group connections and this provides some measure of support for the AMOS community.*

The only other alternative is HiSoft BASIC 2, but the difficulty with this option is that you actually need to know quite a bit about the Amiga system structure arrangements in order to make use of the graphics and Intuition library interfaces and so on, that are provided. This, of course, means that as far as games programming is concerned, the HiSoft BASIC 2 style of interface is actually best suited to users who already have some Amiga C or Assembly language experience!

It might be worth mentioning that one games coding environment that is catching on in a fairly big way is the GameSmith development system (available from HiSoft). This package is aimed at C or Assembly language programmers, but it could become a suitable alternative if you eventually decide to move away from use of Blitz/AMOS BASIC-style languages. ***Paul***

Lamer virus

General

I borrowed an old anim disk from a friend and put it in my A1200's internal drive. My drive groaned and squealed for a few seconds and then my virus checker told me that the disk had the 'Lamer' virus on it. I immediately took out the disk and tested my entire system for viruses. It seemed 'clean', but my internal drive now insists that all of my disks have read errors. But these disks work perfectly well in my external drive. Has the virus damaged my drive, or is it still in the system?

Chris White
Derbyshire

The Lamer virus patches into both the trackdisk device and the Exec SumKick vector (in an attempt to prevent removal). I would have thought that, since you had a virus detector program running, loading of the detected Lamer virus would have been blocked. But if it did get through, it would be randomly writing the word LAMER! on to data sectors of your write-enabled disks, so you would find some of your programs and data files would start to become corrupt.

However, faults present in disks corrupted in this way would behave identically on both of your drives so, off-hand, I'd imagine that your system is 'virus clean' but that your internal drive has developed a fault. Whether this was due in the first place to the actions of the Lamer virus, I really don't know. But providing that the disk was only in the drive for a few seconds, I would doubt if Lamer or any other virus could do any real (physical) damage in this time.

For more information on viruses, how they work and how to avoid them, check out this month's feature, starting on page 22. And for the programs you need to protect your system, look at this month's special Virus Protection Zone on the Coverdisks. ***Paul***

Memory matters

Hardware

What sort of memory do graphics cards use? I was wondering if in order to use a Picasso II with 2Mb of memory would I need 2Mb of Chip memory? How would I fit this much Chip RAM to an A2000?

George Wilcom
Banbury

Video cards like the Picasso II all have their own local memory on the card. This memory is accessed by the graphics chips (which always seem to be made by names familiar with PC owners). However, because the Amiga can have multiple screens open at once (you can flick through them with the Amiga-M and Amiga-N keys) the display is usually also stored in the Amiga's own memory.

The graphics board's own hardware removes the need for the Amiga custom video hardware to have direct access to this memory they can be stored in Fast RAM. Therefore, if you do fit a graphics card, you will see the amount of Chip RAM rise, while more Fast RAM is used. ***John***

Screen effects

General

I have problems with my A1200. The screen turns red or sometimes yellow when booting up. What does this mean?

Michel Bomer
<8094039@hto.rhij.nl>

I believe the red screen signifies a Kickstart error, while yellow indicates some unexpected error. But both of these suggest that your machine has a motherboard fault! ***Paul***

CD-ROM connections

Hardware

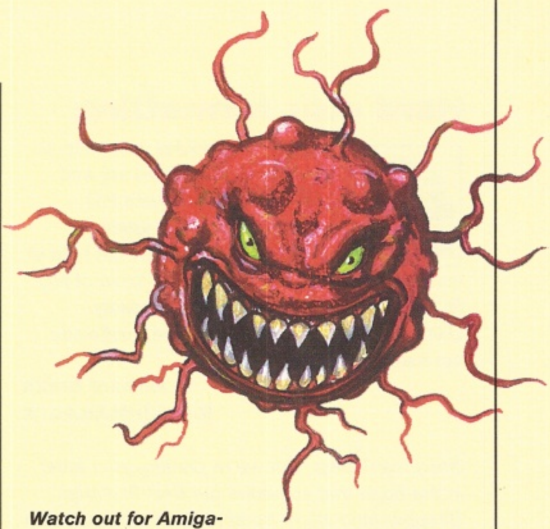
Will my A600 be able to use the Power Computing CD-ROM drive without the need for a Squirrel? Does the CD-Write software do exactly what it says? Can you please expand on this subject?

Vasilios Karageorgis,
Athens, Greece

As it is a standard SCSI device, the Power Computing CD-ROM drive comes complete with a Squirrel interface. Buying it without a Squirrel is possible if you happen to already own a SCSI interface, but as you have an A600 I wouldn't think this was likely.

There are rumours of software which will enable the Amiga's internal IDE interface to work with PC-style, low-cost ATAPI CD-ROM drives, but I'm not sure if this is includes the A600: only the A1200 and A4000 have been mentioned so far. When we get to review the system, all will become clear.

Read the small print, which claims CD-Write can (virtually) write to CD-ROMs. CD-Write cannot actually alter the data burned into a CD-ROM disc as this is physically impossible. Instead, CD-Write stores any alterations made to files on the CD on hard disk: when you read the updated files they are from the hard disk, not the CD-ROM. A full review was in AS56, page 41. ***John***



Watch out for Amiga-threatening viruses! Turn to page 22 to find out how to protect yourself and your machine.

Edge contention

Hardware

I have an A500 fitted with a GVP A530 (200Mb hard drive with 68030 and extra memory).

I recently bought a cheap A570 CD-ROM drive which works well, but as this and the A530 both use the edge connector I can't use both at the same time.

Is there a way in which I can connect both simultaneously or would it be easier just to get another A500 and connect them via Parnet?

Steve Jordon,
Walsall

I remember lusting after an A530 for some time: all that extra speed and memory: not to mention the price tag of over £1,000 for a system like yours. Connecting two devices to the one connector was possible by means of a fabled splitter device which was spotted once or twice. The problem was that the extra connector was pointing straight up into the air, so finding some way of placing a drive was a problem. Also, two advanced devices like an accelerator/hard drive and a CD-ROM drive may conflict and fail to work together anyway.

The Parnet solution would work, especially as secondhand A500s are pretty cheap. But I suggest that you make use of the external SCSI port on the A530. Double-speed SCSI CD-ROM drives are available for less than £50, and you will only need a power supply and a cable to connect it directly to the back of the A530. Driver software is available from the Public Domain, and the performance will be much, much better than a Parnet system. ***John***

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Hard disk formatting

Hardware

I work in a computer workshop at Sheffield Hallam University and have an old A2000 with HD problems. The drive needs re-formatting but we can't get hold of the software to do the job. Do you know of any Ftp site that could provide the necessary utilities? I had a look on wuarchive.wustle.edu but had no success.

Richard Smith
R.smith@shu.ac.uk

Sorry, can't help. But we're printing your letter in the hope that someone out their in Amiga Shopper-land might be able to provide you with software. In the meantime it might be worth giving Power Computing a ring (☎ 01234 273000). Depending on the exact hardware you have, it's just possible that they may be able to help relatively quickly! ***Paul***

Power surge

Hardware

I have a three-year-old A1500. When the power is switched on it takes longer and longer to boot: sometimes even hours. If I switch off everything in the house it comes on in a matter of minutes. I leave it on all the time now, as I don't fancy paying £80 for a new power supply.

John Cannon
Newton Abbot, Devon

A bizarre problem. It is hard to understand how switching off everything in the house makes a difference, unless you have a serious wiring flaw – in which case you should get the electricity board out to take a look now.

Some Amigas are reticent to boot when cold, as the hard drive refuses to spin up to speed quickly enough. But this is no explanation, unless you live in a very warm climate and so switching off an air conditioner causes the room temperature to rise.

Invest in a mains filter and spike counter to see how 'clean' the mains supply is. Failing that, you will need a new PSU. It is possible to adapt the cheaper PC models, but check the wiring as the plugs carrying +12, +5 and -5 may be wired differently. ***John***

PC file transfer

Software

Is there a viewer that will show my Imagine pictures at their highest resolution, as I have Viewtek but when I load Imagine pictures the edges are blurred. Also, is it possible to transfer Imagine objects and textures between my A1200 and a PC P60? I'm starting an IT course and I can't afford a CD-ROM drive for my Amiga, so I want to buy a CD-ROM with objects and textures, read the files on my flatmate's PC, copy them to floppy disk and then load them into my A1200 (80Mb HD, 28MHz '030 Viper card and 4Mb Fast RAM).

J Parker
Maidenhead, Berks

You could try a PD program called View, or a low-end version of Scala (such as HT100) which would allow you to set up presentations of your images. There's also a PD program called SuperView by Andreas Kleinert (v4.61) which may do what you want. You'll find View and SuperView on any Aminet Internet site, or PD library. You could also try the MultiView program which is part of Workbench 3, which you should already have on your Amiga.

Regarding transferring data between your flatmate's PC and your Amiga, yes, you can do it. On your Workbench disks (or in the Workbench partition of your hard drive if you've fully-installed all the software) you should have a program called CrossDOS. There are also two drivers (called PC0 and PC1) which you'll find in your Storage/DOSDrivers drawer in your Workbench partition. These are the tools you need to read PC format disks on your Amiga.

To transfer data from the PC you'll need to format a 720K floppy disk on the PC (unless you have a HD drive on your Amiga, then you can use 1440K PC disks). Copy the files on to the PC disk. Then take the PC disk and pop it into your A1200's internal (Df0:) drive. Your Amiga won't be able to recognise the disk at this stage, but if you double click on the PC0 icon in Workbench:Storage/DOSDrivers the driver will run and the disk will be recognised. From this point on you can use your favourite disk management software (such as Directory Opus) or a Shell to transfer the files from disk to storage or load them directly into your 3D software. ***Gary*** ■

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____________________ **Post code** ____________

Your machine:

☐ **A500** ☐ **A500 Plus** ☐ **A600** ☐ **A1000**
☐ **A1200** ☐ **A1500** ☐ **A2000** ☐ **A3000**
☐ **A4000**

Approximate age of machine: ____________________

Kickstart version (displayed at the "insert Workbench" prompt)

☐ **1.2** ☐ **1.3** ☐ **2.x** ☐ **3.x**

Workbench revision (written on the Workbench disk)

☐ **1.2** ☐ **1.3** ☐ **1.3.2** ☐ **2.04/2.05**
☐ **2.1** ☐ **3.0**

PCB revision (if known). Do not take your machine apart just to look for this! ____________________

Total memory fitted (see AVAIL in Shell for Workbench 1.3) ________

Chip memory available (see AVAIL in Shell) ____________________

Agnus chip (if known) ____________________

Extra drive #1 (3.5in/5.25in) as DF : Manufacturer ____________

Extra drive #2 (3.5in/5.25in) as DF : Manufacturer ____________

Hard disk: ____________ **Mb as DH** ____________ **:**

Manufacturer ____________

Extra RAM fitted – type, size in Mb and manufacturer ________

Please indicate details of any other hardware which could help us to answer your question:

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Now, use this space to describe your problem, including as much relevant information as possible. Please continue on a separate sheet if necessary.

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FOR SALE

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● **Amiga A3000** bits: memory (static column dram) £30; megabyte GVP IO Extender £90; CD-ROM drive (Toshiba) plus Aminet CD's £110; Fujitsu SCSI 540Mb drive £150. ☎ 0171 978 9893.

● **Amiga A4000/30**, 4Mb, 120Mb HD, superb graphics machine, hardly used, mint condition only £600 ono. Commodore hi-res 1940 monitor £150, box, software available, must sell. Contact Mehran ☎ 0171 888 6349 during office hours.

● **A1200** boxed with manuals, 120Mb HD, 10845 monitor, Viper 030 28MHz with FPU. Imagine 3.0, Vista Pro etc. No RAM, but all in vgc, £550. Call Lee on ☎ 01474 852993.

● **A500** 2Mb, joysticks, mouse, lightpen and software, spare floppy drive, loads of software – £1,500's worth – hardly used 3D packages and all the Delcae paint range up to 5, £200 ono. ☎ 0181 386 0742.

● **60Mb 2.5inch hard drive**, Workbench 3 installed, cable and reformatting software included £60. Citizen 224c printer including driver and manuals £75. ☎ 0181 471 1120.

● **Vortex** Golden Gate 3865x emulator. Boxed and warranty with VGA card. £200 or swap for Emplant card. Fits A1500, A2000, A3000 and A4000. Mike ☎ 01268 514481.

● **A1200,** 170Mb HD, Philips 8833MK2 monitor, 4Mb extra memory, external floppy drive, Citizen 1200 printer, joysticks, mouse, magazines, software, one year old. £800 ono. ☎ 0181 245 4512.

● **Sony Trinitron monitor** C/W cable £150. Overdrive hard drive 560Mb, plugs into PCMCIA, packed with software £200. 28MHz accelerator C/W 4Mb RAM, £150. Phone Steve on ☎ 01946 61734.

● **A500** 5Mb, 42Mb GVP HD, Philips 8833MK2, monitor and TV tuner, external disk drive, 150+ disks of games, educational and serious software. Including PPage 3 +, CG Fonts, £375. CD^{32}, nine games +CDPD, £150. Call ☎ 01932 865057.

● **A1200** GVP 40MHz 68030, 4Mb Fast RAM, 60Mb HD, CD-ROM, 10845 monitor. Software and magazines £500. ☎ 01245 495137.

● **Amiga 1500,** 8Mb RAM, 24-bit, 030 accelerated with two 120Mb hard drives, three floppy drives, 1084 monitor, Star printer £1,000 ono. Phone Chris on ☎ 015909 646716.

● **A1200,** accelerator Viper 68030, plus 2Mb RAM all for £120 ono. Contact Kevin on ☎ 0181 698 5508

● **Amiga** video back-up, store 150 disks to tape or back-up H/D, £25. ☎ 0161 790 0962 for all Amigas.

● **Do you own** an AGA Amiga and CD-ROM drive? If so, phone Richard on ☎ 01263 722169 for details of a great CD!

● **Amiga 1200**, 80Mb, Blizzard 1220/4Mb accelerator/memory card, second floppy, sound sampler, Wordworth, Directory Opus, AMOS Professional, IntOS, Maxiplan, DPaint – £500. ☎ 01206 573634.

● **Squirrel** SCSI interface C/W Power Computing CD-ROM software £45 ono. Tel ☎ 0117 987 7363 evenings. Will post.

● **Amiga 1200** 210Mb hard drive, 50MHz processor, 6Mb memory, Commander 1940 multi sync monitor, second drive, plus too many extras to list. All boxed with manuals, printer £750. ☎ 0117 977 1523.

● **CD^{32}** £125. Network CD, disc and leads for A1200 connection £25. Many CDs – games and utilities, at half price. Phone John Arnold ☎ 01730 267486 after 6pm.

● **Final Writer 3**, PC Task 3.1, VistaPro 3.0, Logo, and others. Many original games on disk and CD. Send for list. Phone John Arnold on ☎ 01730 267486 after 6pm.

● **68040** for sale, 25MHz version for A4000, £90. Also 4Mb SIMMs for sale, £80 each. Hurry for good deal, only three for sale. Phone Alan ☎ 01343 545927 (Scotland).

● **Amiga 500** Plus for sale, 2Mb RAM, mouse, TV modulator software, excellent condition £150. ☎ 01734 817545 after 6pm.

● **Amiga 1200** manuals, many games and magazines, £150. Blizzard 1200/4 memory board £125, Philips Cm8833-2 monitor £125, external 31/2in disk drive £25. Phone Mick ☎ 01256 702546 (Hants).

● **Amitek** Hawk 2Mb RAM expansion for A1200, boxed as new, £90 ono. Call ☎ 01869 322165 and ask for Jeff, after 6pm.

● **A4000/030** 4Mb RAM, 120Mb HD, loads of mags and coverdisks boxed with all disks and manuals, superb condition, £800. Call Paul on ☎ 01246 474517.

● **US Robotics** 28000V.54 baud modem, leads, power pack and all manuals included. Only five months old – five year warranty intact. Comes with Comms software £170 ono. Phone ☎ 01253 691754 after 6pm.

● **Citizen** 240C colour printer, excellent condition, £50. Hawk trapdoor upgrade with 14MHz 68882 FPU, no RAM. Can take 1,2,4,8 SIMM £25. Call Pete ☎ 0151 486 8713.

● **Zappo CD-ROM drive** includes cable and software. No need for SCSI controller. Three free games: Brutal Football, Overkill and Lunar-C, £100 the lot. Call Alan ☎ 01382 452268.

● **A1200**1942 stereo monitor, twin floppy drives, 210Mb HD, GVP 030 MMU + FPU 50MHZ, Goliath power supply, fast SCSI, stereo speakers, 10Mb RAM, loads of software, all boxed £750 ono. ☎ 0151 487 9218.

● **Roland** E5 LA multi timbral MIDI keyboard with auto play and drum sound in very good condition. £200. ☎ 01923 770357 (Watford).

● **Amiga CD^{32}** with 16 games and Competition Pro joypad £130. ☎ 01980 622034

● **Amiga 500+** with 2Mb, Epson FX-105 printer, mouse, joystick, TV modulator and over 150 disks, including many good games and utilities. Excellent condition and boxed for only £180. ☎ 01435 865046.

● **A1200,** 85Mb HD, Philips colour stereo monitor, Star 24-pin printer, Amitek second drive, mouse, joystick, manuals, serious software, games, very good condition, boxed, with receipts £590. Please phone Brian on ☎ 01327 352861.

● **A1200,** as new condition, 3250 with internal hard drive only £300. Monitor £100, external drive £30. Printer, colour £100. Postage or cash on delivery extra. Please tell or fax ☎ 01322 664136.

● **Vortex** Golden Gate A865LC PC emulator card for Amiga 2/3/4000, excellent condition, wanna run Word? No problem, Coral Draw? Piece of cake! Still in original packaging, £320 ono. Call Eric on ☎ 01246 417807.

● **A1200,** boxed as new, with games, etc, £250 includes p+p. A1200 with internal hard drive £300. Monitor £100, disk drive £30. Will send cash on delivery if required. Call ☎ 01322 664136.

● **Amiga 1200** £200. Amiga 1500 £250. Opalvision £200. V-Lab £200. 180Mb hard drive £100. Art Dept Pro £50. Pro Control £20. Video Director £50. Vidi Amiga 12 £40. Call John ☎ 01332 769666.

● **Amiga 1200**, 240Mb HD, 2Mb RAM, spare floppy drive, RGB monitor 14in, lots of software 200+ disks, games, DTP, 'C' compiler, etc, with manuals £450. Call ☎ 01785 228988, evenings only.

● **GVP accelerator** for A1500/2000, 40MHz, 68030 with 68882 FPU and SCSI controller. Includes 8Mb RAM, £300 or with 230m hard disk, £450. Boxed like new. ☎ 01622 739518.

● **Printer** for sale. 9-pin dot Seikosha complete with consumables and driver software £80. Contact Andy on ☎ 01734 612628.

● **A1200,** HD, monitor, Vidi-12, genlock, external drive, 200 boxed titles selling separate. Large SAE to: Gavin, 24 Northview, Swanley, Kent, BR8 7BQ. (Fast RAM card and more also available) send today!

● **A1500** 3Mb RAM, 100Mb H/D 10845 monitor, scanner, MIDI interface, assorted software. Excellent condition. May split. Any offers considered. ☎ 01462 456721.

● **Amiga 1200**, Zappo CD-ROM drive, external drive, speakers and tons of software, £250. Caller collects (Lincoln area). Music-X 2.0 and Datel MIDI interface and leads £25. Contact Craig on ☎ 01673 861368.

● **120Mb** 3.5in IDE Seagate HD, Workbench 3.0 installed £40. Contact CPL Moffat BMY Rinteln, BFPO 31. ☎ 0049 5722 5953.

● **Bars & Pipes manual** £20. Amiga A500 KCS board fitted 2.5Mb RAM, 1.3 and 2.04 operating systems, lots of software, 2400 modem, £150. ☎ 01482 870792.

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● **Amiga 3000** MMU and 68882 fpu 25MHz, 210Mb hard drive, 10Mb RAM, multisync monitor, plus extra software, boxed with manuals, excellent condition! £900. ☎ 01440 62310.

● **A1200** 10Mb RAM, fan cooled 50Mhz 030 +FPU. 420Mb hard drive, Epson GT6500 flatbed scanner, Ad Pro Driver, Brilliance 2, ImageFX, Imagine 3, Loadsa objects, coverdisks, all boxed, manuals £1,000 ono. ☎ 01753 526602.

● **Maxtor** 540Mb hard disk drive suitable for Amiga 1200/600, two year warranty, leads, manual. Will swap for CD³² console or CD-ROM drive with games. ☎ 01978 846315 Mark.

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● **Amiga A1200** 6Mb RAM, 200Mb hard drive, loadsa software including Zool 2, Jurassic Park, Theme Park, etc. £425. Call Phill on Sheffield ☎ 0114 268 3393. All the software are originals.

● **Amiga CD³²** for sale. Two joypads, 25 games including Microcosm, Syndicate, Beneath A Steel Sky, Power Drive, Skidmarks, Liberation, UFO, Simon The Sorcerer and many other top titles. £175 ono. ☎ 0171 888 6842 (work), ask for Gurmeet, or ☎ 0181 571 0712 (home), call before 8pm.

● **B2000** 7Mb 120HDD GVP SCSI 2x FDD 10845 monitor, all pristine condition. Lots of software inc. Prof. and games £400 ono. Call Aiken on ☎ 01245 465487 (Essex) after 7pm.

● **Free postage!** Breaking 500+, £20 per part for PSU; motherboard, case, keyboard, disk drive, manuals, etc. Adrian ☎ 01964 543592, 7 Scotts Garth Dr, Tickton, Beverley HU17 9RR.

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● **A1200** 6Mb RAM, 33MHz FPU and clock. External drive over £500. Software including Sensi, Rise, SIM 2000, two joysticks, mouse, hi-fi leads £300 ono. Phone Kev ☎ 01652 633066, after 5.30pm.

WANTED

● **Using Amiga DOS manual**. Please contact: Mrs P. McKenna, Breslanstown, Drumconrath, Navan, Co. Meath, Ireland.

● **Videocrypt decoder** plus interface for Amiga. Richard Freitas (Portugal) ☎ 019 782152.

● **A1291 SCSI Interface** for GVP, A1230 Series II accelerator (for Amiga 1200). Reasonable price paid, please phone Mr. Pratt ☎ 01935 27996.

● **Add-ons for A1200** wanted: disk drive, external H/D, CD-ROM video back-up especially wanted, anything considered. R. Heath ☎ 01621 851106.

● **Wing Commander AGA,** must be original with manual and in good condition. Will pay good price. Contact Alan on ☎ 01343 545927 Scotland.

● **Amiga 1942 monitor** in good working order and tape back-up for A1200. Phone Mike on ☎ 01208 74408.

● **Trapdoor memory expansion** for A1200 wanted. Will pay in the region of £40 for 1Mb, or £70 for 2Mb. FPU etc. not required. Please contact Michael on ☎ 01361 810268 evenings.

● **Wanted: Amiga contacts.** Write to Kevin, 67 First Avenue, Canvey Island, Essex SS8 9LR.

● **GVP genlock** and Vidi 24RT digitiser to swap with software like Scala MM300, DPaint 4, CD's, Imagine 3, Adorage 2, Typesmith, Videogold collection, Demo Maniac, etc. Contact Dominic on ☎ +356 378628 (Malta)

● **Citizen printer head** wanted. Nine or 24 – any condition, will pay post and packing ring Tony on ☎ 01229 774418.

● **I have** recently started my own Public Domain catalogue and I am looking for customers. Send a first class stamp for a free catalogue: Kevin, 67 First Avenue, Canvey Island, Essex SS8 9LR.

● **Satellite** decoder software wanted, also GFA-Basic 3.5 interpreter and GB scewery disk (FSII). Robert Atkinson, Vinquin, Costa, Evie, Orkney, KW17 2NN (cash waiting). Phone: ☎ 0185 6751 436.

● **Bible software** for Amiga 1200. Please phone ☎ 0181 509 1871 after 6pm.

PERSONAL

● **Commercial** games programmer wanted. Call Ralph Lovesy on ☎ 01280 850450.

● **Own or use Blitz Basic?** Write to me NOW for news on a possible Blitz User Group. M. Tillett, 27 Hillside Ave, Worlingham, Beccles, Suffolk NR34 7AJ. ☎ 01502 714663, 6-7pm.

● **Musician** looking for PD work. Write to: Russell Lewis, 44 Moreton Road North, Luton, Beds LU2 9DP for example of my work.

● **Scanning service!** Have your photos and other images scanned with an Epson GT-6500, 24-bit, for perfect results. Images can be downloaded or sent by post, etc. Phone Jason ☎ 01507 568318 for more details.

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● **Digital intensity**, Amiga disk-magazine. Covers topics like: PD, commercial software, printers, Amiga hardware, etc. For more information send an SAE to Simon Denvir, 40 Old Cavehill Road, Belfast BT15 5GT.

● **Mayhem** (ex-Sliver) now open. 5.5GD Amiga files on line. 7pm-6am, 24 hours at weekends. New users to Comms welcome. All speeds up to 14.4k running Xendlink, helpful SysOp. ☎ 01502 714663.

● **Impact BBS**, contact Steven Yapp on ☎ 01584 876365 on week days and 24 hours at weekends.

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● **No Limits BBS** ☎ 01293 413668. 24-hours, 1.2 Gigs, great new BBS! Running Xenolink. Check out what a 15-year-old can do. Dozens of networks, including Barnet. Pros and new users welcome.

● **Magic Mushrooms BBS**, online 24-hours, over 7 Gigs available. ☎ 01889 579854. Free access to CD-ROM, new users most welcome. Helpful SysSop, all speeds up to 28.8K. The Midlands' finest BBS.

● **Big Hard One BBS**. Amiga only, 3.5 Gigs online. PCs not welcome. Call ☎ 01162 661610. Node 2 (remote) call ☎ 01530 260160. Call 8 till 8 every night. ■

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Straight talk

With the introduction of E-mail, person to person communication has been revolutionised. **Darren Irvine** *explains the easiest ways to talk to people over the Net.*

Despite the fact that these days the Internet applications that get the most attention are the ones with the most graphics (specifically browsers for the World Wide Web), E-mail remains one of the most important aspects of using the Net.

Mail bonding

If your Internet Service Provider has supplied you with any software, you've probably found that the E-mail stuff is pretty dire. The best of the bunch is the program called Mail, which is supplied (and developed by) Demon Internet.

Mail is actually a decent program, but although it handles most of the functions required from an Internet mailer, it is not very flexible. Still, it's easy to set up, and works well with either SMTP or POP mail delivery. You can get hold of the program from Demon's own FTP site at the address and path shown in the boxout called "Getting hold of..."

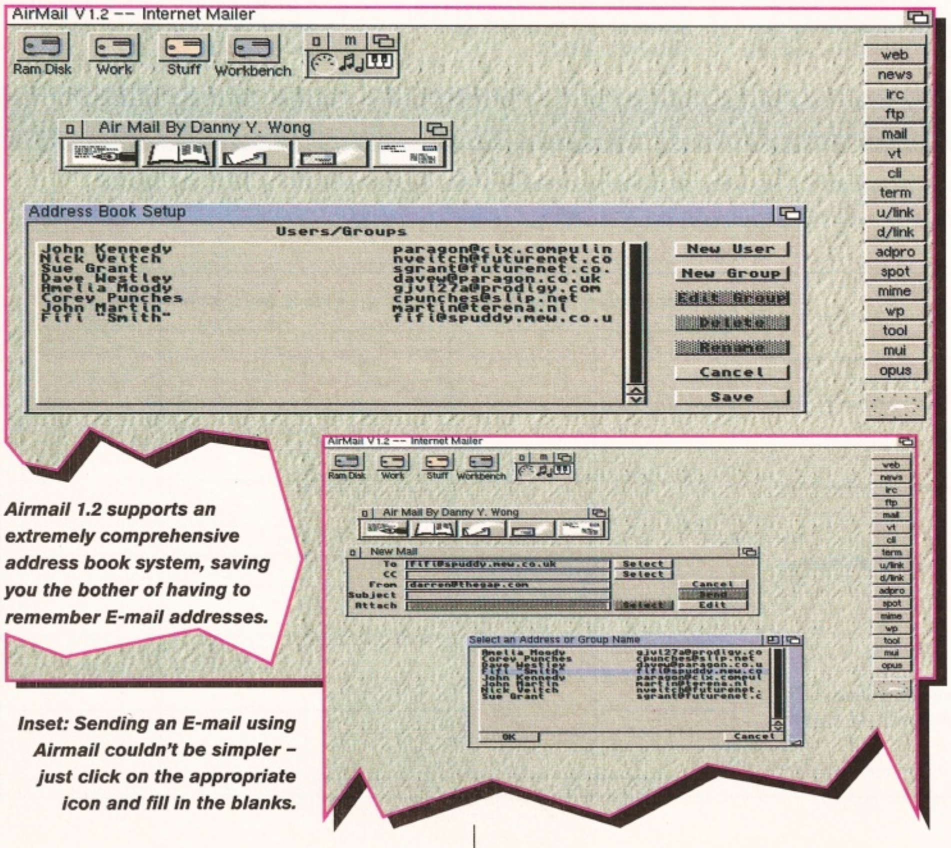
If you are already a Demon customer, the supplied AmiTCP setup should have neatly installed Mail, along with the mechanism for sending and receiving mail (using Mailkick). In the case of some other ISPs who also support SMTP delivery, you should be able to adapt Demon's installation kit. If, however, your Service Provider can only deliver mail to your system using POP3, then you'll need to get hold of a program called AmiPOP to retrieve your mail.

Installing AmiPOP is really only a matter of unarchiving and setting up a few environment variables – the supplied documentation is excellent. (Almost all archives of AmiTCP come with a version of "sendmail" which is used to transmit outgoing mail from your system.)

Until recently the only alternatives to using Mail were a couple of Unix ports, called Elm and Pine. Both of these programs have come forward leaps and bounds in their latest incarnations, and if you are used to either on a Unix platform then installing them on your Amiga effectively avoids having to learn new software. However, neither is really up to scratch in terms of Amiga-style user friendliness, and happily there are a couple of new Amiga-specific programs available to take the place of these horrible 1970's throwbacks.

Jargon

SMTP – Simple Mail Transfer Protocol:
The main way of transferring Internet E-mail to and from your computer (until recently).
POP3 – Post Office Protocol (3):
The pretender to the throne in terms of E-mail delivery. Some ISPs only support POP3 E-mail delivery. In this case you'll need a copy of AmiPOP.
ISP – Internet Service Provider:
You probably knew this by now.
UUENCODE/UUDECODE:
A method of encoding an 8-bit file into a form in which it can be transferred across the 7-bit E-mail system of the Internet.



Airmail 1.2 supports an extremely comprehensive address book system, saving you the bother of having to remember E-mail addresses.

Inset: Sending an E-mail using Airmail couldn't be simpler – just click on the appropriate icon and fill in the blanks.

AirMail 1.2

The first of the new releases is a Shareware update of AirMail. AirMail 1.2 is a fully-featured system, catering for everything from receiving mail, through an address book and mail folder system, to actually sending mail off again. It's also straightforward to install and get running, making it a pretty good choice for the novice to E-mail systems.

When you first run AirMail, a toolbar pops up on your Workbench with five icons. These control the setting up of your address book, sending and retrieving mail, and viewing your In and Out folders. The address book is particularly well featured, with the ability to segregate users into any number of different groups. When you come to send a new mail, the recipient of your message can be selected from the address book that you set up.

The actual messages are composed using the external editor of your choice. Support for automatically UUDECODEING incoming messages is also available, which can come in handy if you are in the habit of receiving binary files such as graphics files by E-mail. This can only go so far however, and AirMail's one downside is the lack of MIME support.

Getting hold of...

Demon's Mail can be obtained from their own FTP site:
ftp://ftp.demon.co.uk/pub/amiga
By the time you read this (my version of MetaTool is a beta release), the rest of the software mentioned should be available from any of the Aminet mirrors, almost certainly in the comm/mail sub-directory (for the mailers and AmiPOP) and the comm/tcp sub-directory for Grapevine.
ftp://wuarchive.wustl.edu/pub/aminet
ftp://src.doc.ic.ac.uk/pub/aminet

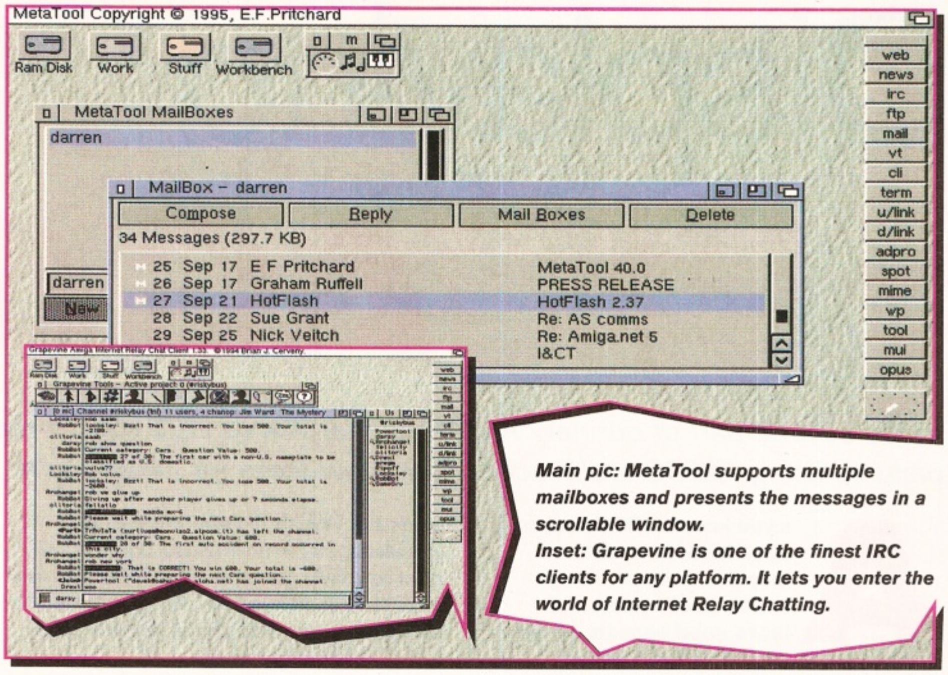
MetaTool

This is where MetaTool comes in. The original version was a MIME message compiler, and you needed to have all the rest of your E-mail system already installed, including the Send and Receive mail programs and an actual mail reader/editor. The author has expanded this original system into an almost completely full-featured one. The only external programs still required are those that handle sending and receiving mail from your ISP (i.e. AmiPOP, sendmail, recmail, etc.), but as mentioned, most archives of AmiTCP will already have set these up on your system.

MetaTool supports multiple mail folders (handy if you let other people use your Amiga) and fully supports MIME both for incoming and outgoing messages. When you receive a MIME message, MetaTool correctly handles the display of each MIME partial, according to the definitions setup in a "mailcap" file. I tried it with just about every file type I could think of (and that I had been bothered to set up for the previous MetaTool incarnation). Everything worked fine, from graphics files (IFFs, GIFs, JPEGs – you name it), through samples to a number of obscure and experimental types that I had set up – including a type for Final Writer.

It's when you reply to a message or send a new one that MetaTool's uniqueness is evident. Instead of dumping you straight into a text editor and letting you manually type your message, MetaTool assembles multi-part messages by dragging and dropping the appropriate files. If for example, you want to include an IFF picture in your message, just drag it into the MetaTool composition window. If you actually want to manually edit a text file, then you can do that too. When you've added all the parts of your message, and shuffled them into an appropriate order, just click on the Send button.

The only obvious disadvantage to MetaTool is that it requires the installation of the (for some) dreaded Magic User Interface (MUI). MUI is a set of GUI extensions that make it easier for programmers to add complex features to Intuition-compliant programs. Some people have complained that it's buggy, but I have never had any problems using it with MetaTool.

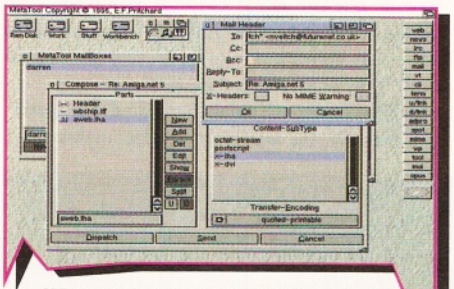


Main pic: MetaTool supports multiple mailboxes and presents the messages in a scrollable window.
Inset: Grapevine is one of the finest IRC clients for any platform. It lets you enter the world of Internet Relay Chatting.

Making your mind up

When choosing between AirMail and MetaTool, you have to look at a number of factors. AirMail is a very competent self-contained mail system, and if you don't mind paying the Shareware fee (currently US$25) it makes a great system for those new to E-mail.

If you need the more advanced MIME features supplied by MetaTool then there really isn't any other choice. Elm can be cajoled and battered into handling MIME, but let's face it – who could be bothered going to the trouble required with a Unix-ported program?



When replying or sending a new mail, MetaTool comes into its own, with a unique drag and drop system.

Then there's MUI. Some people just don't like it, but I think that it is much maligned, and it makes programs like MetaTool nice to look at and easy to use (and easy for the programmer to write and update in the first place).

So basically, it's a matter of personal choice, and these two programs aren't the only ones available. If you prefer the no-frills approach, then Demon's own Mail system is perfectly competent. At the other end of the complexity scale is Thor, a program that can (eventually) be set up to handle E-mail, Internet news, Fidonet and a whole host of other systems. Thor is a nice concept, but is too intractable and unwieldy for all but the most dedicated of users. If you can stomach the thought of MUI (if you're using AMosaic then you already have it), then MetaTool is the one to go for.

It's good to talk

While on the subject of Internet person to person communications, another extremely nice program which runs on top of AmiTCP is the IRC client Grapevine. IRC (Internet Relay Chat) is a huge, worldwide multi-user conferencing system. Grapevine is one of the nicest IRC programs on any platform, and is simple to set up and configure. Once running, it takes the old-fashioned command line IRC system and throws it away – all the main features are controlled by a button bar, or from pull-down menus.

The programs mentioned here are only a few of those available for the AmiTCP system. Certainly there's nothing available for other platforms which isn't available for the Amiga in some shape or form. In coming months we'll take a look at some of the more esoteric Internet-related programs available.

Darren Irvine can be E-mailed at:
darren@plasma.the gap.com
fido 2:443/13.18 ■

Understanding MIME

MIME stands for Multipurpose Internet Mail Extensions, and is a system for adding graphics and sound files (among many other things) to standard Internet mail messages. The method used for encoding the files is called Base64, and works in a similar (but typically incompatible) way to UUENCODE.

A MIME message is a text file containing a series of references to other data objects, known as "parts" or sometimes "partials". Each part contains a description header which contains its name and a code representing the type of data which is stored in that part.

The actual data itself (referred to as the "Body" part) can either be encoded directly into the MIME message itself, following its header, or "attached" to the original message as an "external part".

When the E-mail message gets to its recipient (and providing of course that the recipient's mail system is MIME-compliant), the message is split back up into its original parts and displayed appropriately. MIME is one of those ideas that although brilliant always surprises people when it actually works.

Displaying AGA screens part 2

In the second part of our new AMOS tutorial ***Steve Bye*** *shows you how you can display AGA pictures using AMOS and teaches you a few tricks for when you're writing a program in AMOS.*

As you know, AMOS does not directly support AGA graphics, but your Amiga A1200/A4000 does, and that's good enough. All we need to do is use AMOS Pro's "Exec" instruction to execute an external program like PPShow or ViewTek. In fact, we can display virtually any format of picture, as long as we have an external displayer program that accepts arguments. So, here is the three-line listing I used to display a GIF image taken from a PC CD-ROM:

```
Amos To Back
Exec "df0:c/ppshow CAR.GIF"
Amos To Front
```

Simple, isn't it? The first line, "AMOS To Back" pops your Workbench screen into view and hides AMOS' screen. The second line does all the work. I have used the PPShow V4 PD program because it displays GIF images as well as many other file formats. I have PPShow in the "C" directory of the disk in Df0: so its path is Df0:c/. The picture I want to display is called Car.GIF. You may need to change the path and file names to make this listing work for your own programs. When you have clicked the right mouse button, PPShow quits and the last line in the listing, "AMOS To Front" will then be executed, giving you full control again. At this point you could use more "Exec" calls to display more pictures. This is how some AMOS-written slideshows manage to display non-Amiga file formats and AGA pictures.

You could use this technique for displaying loading screens in your programs. You will not be able to change the image using AMOS instructions because AMOS has nothing directly to do with the image, but you could manipulate the image using a mixture of other PD programs such as image converters.

Note: AMOS Classic users do not have the "Exec" instruction. See last month's tutorial on how to get around this.

Also note: You may need to gain the authors permission before including a program with one of your own. Check first with the author if you intend to release your program.

Storing executables

We now know how AMOS-written slideshows appear to support AGA and/or non-Amiga file formats like GIF, BMP and PCX. But if you look on the slideshow's disk you may be surprised to see no displayer program on it! How do they do that? They store the picture displayer inside AMOS in a memory bank. Simplified, the steps you need to take are: store the executable program in an AMOS bank; when your AMOS program runs, you must save the executable out of the bank and into the RAM disk; and then you simply call the program from RAM: using "Exec" and delete it when you have finished.

Here is how to store the program in a bank. Press Escape to go into direct mode. Reserve a bank to the exact size of the program you wish to be stored, for example:

```
Reserve As Data 10,19200
```

This would reserve 19,200 bytes in bank 10. The 19,200 bytes would be the size of the program you want to store. Use "Bload" to load the program in, like this:

```
Bload "PPMore",10
```

The above line would load PPMore into bank 10. (You could then link PPmore with a text file and use that as a text displayer! Saving a lot of coding time.) Then in your AMOS listing, you will need a line like this:

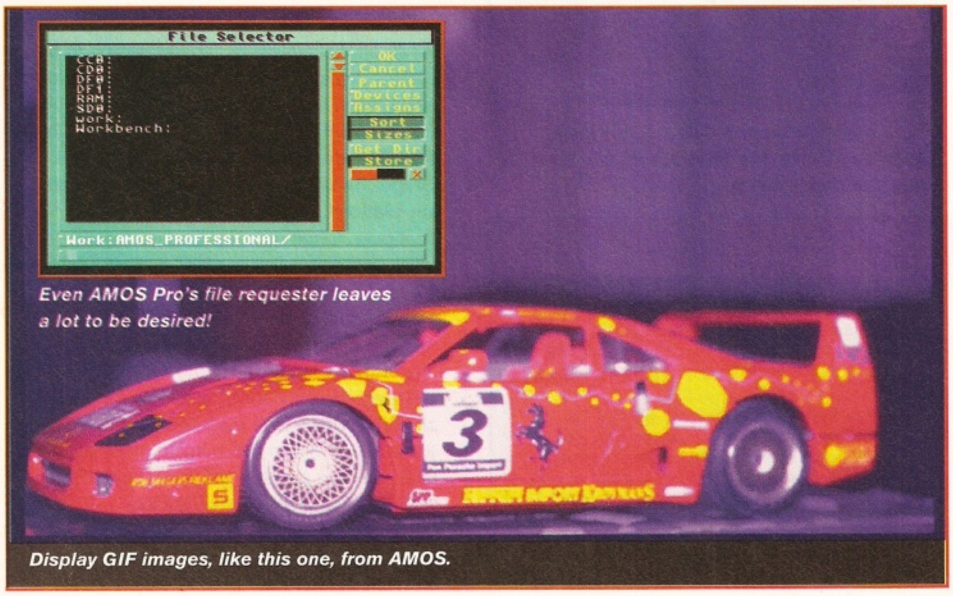
```
BSave "ram:PPMore",Start(10) to
Start(10)+Length(10)
```

This copies the whole of bank 10 as a binary file – that is without changing any of the data – to the RAM disk. Now you can use "Exec" to execute the program from RAM: and use "Kill" to delete it from memory when you are finished.

Example listing 1. You will need to already have stored "PPShow"12 in bank 10 first and a picture file called "Car.GIF" on a disk in "Df0:" for this listing to work. Or, you could change the path and file names to suit your needs.

Beginners

If you are just starting out with AMOS or can't get to grips with all those instructions, help is at hand in the form of a two-disk package from F1 Licenceware called The Absolute Beginners Guide To AMOS. It costs £4.99 +50p P&P and takes the reader slowly through the first 150 or so most important/useful instructions. There are reams of text (35 chapters) and plenty of example programs. Modesty forbids me to mention who wrote it!
Contact F1 on ☎ 01392 493580.



Even AMOS Pro's file requester leaves a lot to be desired!

Display GIF images, like this one, from AMOS.

```
'Listing 1. Bsave
"Ram:PPShow",Start(10) to
Start(10)+Length(10) Amos To Back
Exec "Ram:PPShow Df0:Car.Gif" Amos
To Front Kill "Ram:PPShow"
```

Example listing 2. You will need to already have stored PPMore in bank 9 first and a text file called ReadMe.Doc on a disk in Df0: for this listing to work, or, as above, make changes to the path and filenames. You could have many different programs stored in different banks to do all manner of tasks.

```
'Listing 2 Bsave
"Ram:PPMore",Start(9) to
Start(9)+Length(9) Amos To Back Exec
"Ram:PPMore Df0:Readme.Doc" Amos To
Front Kill "Ram:PPMore"
```

Of course, you can use any free bank you want and virtually any Cli-based program, so have fun, experiment, and get AMOS to do all those tasks it isn't supposed to be possible to do.

Did you know?

That there is some light relief to be had when using AMOS Pro! Load up AMOS Pro and type in any of the following words:

```
"Vanner", "Stephen", "Lionet", "Mel",
"Daisy", "Pudsie", "Dithel", "Carrine"
```

Now move the cursor to the beginning of a name and then press the Help key for some interesting messages, kind of.

Improving AMOS

Using AMOS has its drawbacks. Take the size of executable programs produced by the compiler. If you compiled one line of AMOS code it would come out at around 54K. This alone has put off many would-be AMOS programmers. What about speed? Even compiled, some programs are simply not fast enough. If you are tired of people not taking your programs seriously because they are written in AMOS, then read on...

Disguising AMOS

There is still a stigma attached to programs written in AMOS. Up until a couple of years ago Europress Software (the publishers of AMOS) insisted that all AMOS programs had to declare they were written in AMOS on the title screen. Europress no longer have an interest in the Amiga market, but Ultimate Software plan to re-release AMOS (see our news pages for further details), so you could ask them.

Here are some more tips for hiding your program's origins. Just before your program starts proper, the user gets a glimpse of a horrid orange default screen – what a give-away! To ensure the default screen is black, go to the compiler, set "Create default screen" to "NO". Then open a screen at the start of your program:

```
Screen Open 0,320,200,16,Lowres Flash
Off: Curs Off: Cls 0
```

The Ctrl-C break allows users to stop your program and return to Workbench. Some other

Pro Compiler: out very soon?

Recently quite a few people have mentioned to me that they desperately want to buy the AMOS Pro Compiler.

After several phone calls to mail order companies it seems there are no copies available anywhere. Don't worry though because I have heard that the Compiler – and maybe all five of the AMOS packages – will be back on sale soon, not from Europress, though but from Ultimate Software (see news pages).



The AMOS Pro Compiler is fast becoming a collectors item!

languages do this too, but in AMOS a requester is also displayed, saying "Program Interrupted". Use "Break Off" in your program to stop the Ctrl-C break. Only do this just before compiling. The Amiga-A key combination allows the user to switch from AMOS to Workbench and back again. Use AMOS Lock to disable this, unless you need multitasking.

Filename extenders such as ".Abk" are also a give-away. AMOS does not require you to use them, so you can change them to something more mysterious like ".PAK" or ".WIZ". The AMOS file requester is pretty naff (even the Pro one) so use a custom-made one or an extension like IntOS from OTM (which is on the Coverdisks this month, see page 6) to access the ASL file requester or similar. Never use the "Bell" "Shoot" or "Boom" instructions – use your own sound samples instead.

There are plenty more tips on this subject, and I will try to bring you some more in future installments of this tutorial.

Reducing executables

There are only a few options open to us here. The most obvious is the AMOS.Library. A three-line AMOS program of 100 bytes compiles to a massive 54K with the library included in the code. The same 100 byte program without the AMOS.Library included in the executable program comes out at a more reasonable 8K. If you do your maths, that makes the AMOS.Library around 46K in length. Of course, the AMOS.Library is still needed in the "Libs" directory of the disk your program booted from.

The advantages of having the AMOS.Library inside your program is that if you crunch your executable, the library is crunched too, saving disk space. Or you could use PowerPacker Patch or CrunchMania patch to crunch your Libs, but this may be a bit over the top.

The next step is to crunch the executable. There are various filepackers like PowerPacker, CrunchMania and Imploder. All of these do a good job and are available from any PD Library (try 17Bit on ☎ 01924 366982). Warning: Do not use the "Squash" option from the AMOS Pro compiler, it is bugged; most large programs will report an out of memory error and return to Workbench. The filepackers already mentioned will all beat the "Squash" option, anyway. If you are using a lot of banks in your program a good way of reducing the size of your final program is to load in the banks as they're needed, but this slows down the operation of your program because of disk access time. One way to speed up loading data files is to copy some or all of the required banks into the RAM disk before your program starts proper (on the title screen maybe) and load/delete each bank as necessary. The loading time during the program will be faster than a hard drive! You will have to watch memory very closely, though.

AMOS disk magazines

Since last issue, two AMOS dedicated mags have popped up. WAC, The Wetherby AMOS Club has been revitalised and a new mag called Extreme AMOS has just started. Both have PD versions; try Active Software on ☎ 01325 352260. By the time you read this, a special PD version of AMOSZine should be available. If you would like a copy, send me an SAE and a disk to: 31 Wellington Rd, Exeter, Devon EX2 9DU.

Which Amiga?

Need to know what processor your software is running under? This little routine will tell you:

```
COP$=""
T=Deek(Leek(4)+296)
CPU$="00"
For K=0 To 3
   If Btst(K,T) Then
CPU$="680"+Str$(K+1)-" "+"0"
Next K
If Btst(4,T)
   COP$="68881"
End If
If Btst(5,T)
   COP$="68882"
End If
Print "This Amiga has a ";CPU$;"
processor"
If COP$<>""
   Print "and a ";COP$;" Co-
Processor."
End If
```

For example, you may need to slow your program down on a 68020 and upwards. All you do is examine CPU$. The example code above prints the result, but it is easy enough to change this to your own requirements. ■

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10/10 French	9.99
10/10 German	9.99
10/10 Dinosaurs	9.99
10/10 Driving Test	9.99
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ADIEnglish(13/14or14/15)	16.99
ADIEnglish GCSE	22.99
ADIFrench(11/12or12/13)	16.99
ADIFrench(13/14or14/15)	16.99
ADIFrench GCSE	22.99
ADIMaths(11/12or12/13)	16.99
ADIMaths(13/14or14/15)	16.99
ADIMaths GCSE	22.99
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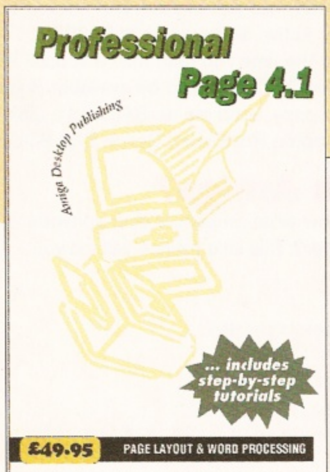
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Foundation for success

We're in the kitchen cooking up some ingredients for our DTP pages this month. **Larry Hickmott** *says if you follow his recipe step by step, then you'll stand more of a chance of publishing success.*

Like everything that's wrong with this world, temptation is the cause of most of our troubles in desktop publishing. Not a sinister temptation like a greed for pension funds, but the understandable temptation to dive in to laying out pages without considering some of the possible pitfalls. This 'make it up as you go' method is a bad habit that we all fall into from time to time and should be resisted.

The keyword for creating successful pages is preparation. A blueprint that hasn't suddenly appeared with the introduction of computers into publishing, but goes back to the days when traditional publishing methods were the norm. Then, the tools at the designer's disposal were limited, unlike today where computers can make people lazy in the planning of their documents.

Let me expand on this theme by telling you how we at LH Publishing plan our documents to avoid falling into this being lazy trap.

A week or so ago, we finished producing a book called Step-by-Step With Professional Page. With more than 200 pages, it was not a job to be taken lightly. The groundwork necessary was very important as you will see.



A program like Deluxe Paint is invaluable for creating, cropping or editing pictures ready to be placed on to a page.

Job number one

The first thing we did when sitting down to plan the book, was to create a synopsis – or outline – of what needed to be done. We did this so we had a good idea of how all the different pieces were going to fit together; producing any sort of document always works out to be much more involved than you at first think.

Take the design of the book, for example. Before it could be created, questions had to be answered. How big would the pages be and what sort of binding would be used? How was the book going to be printed? What DTP software was going to be used?

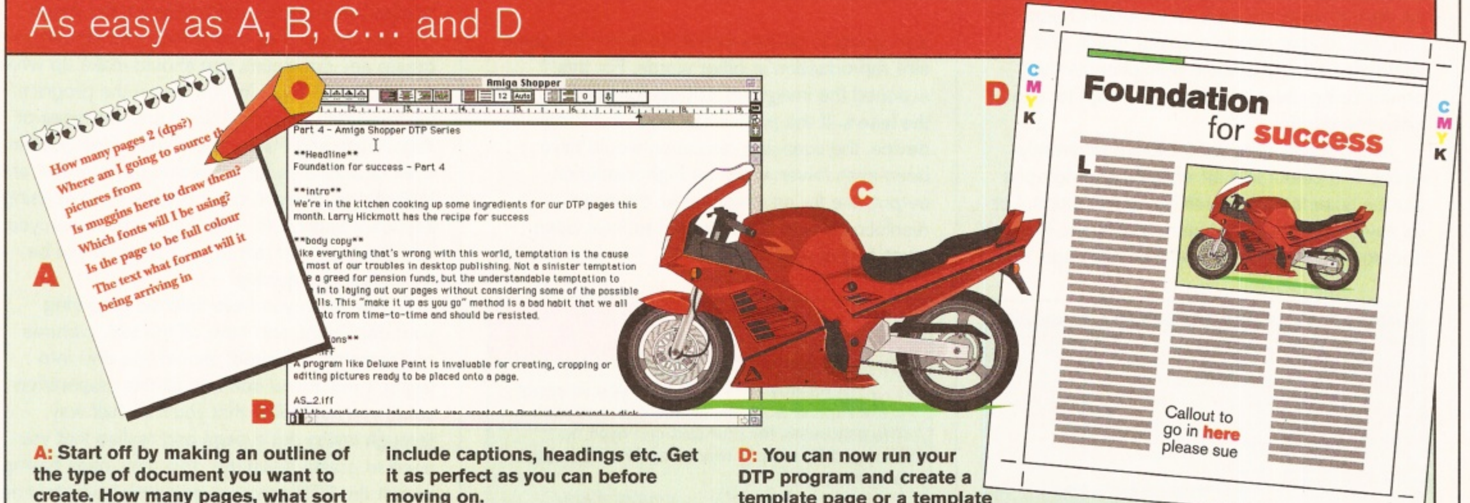
Now those questions may not mean much to you at first, so let's take a look at one of them – how to come up with the page size. Before you can design anything, you need to know how big the page is going to be.

But deciding on a page size can't be done until you know how you are going to print it. We knew that the pages of the book were going to be output on an A4 postscript laser printer. That meant printing on to A4 paper.

We also knew that we could be flexible in the final page size because of the type of binding we had chosen. This gave us more options than if we had decided to staple the pages, for example.

And just when you thought it was safe to say, that's it, we'll go with this or that size, there was the question of user friendliness. If, for example, we had made the book A4, it would have been too big and bulky to handle. In contrast, we knew from our own experiences of working with computer manuals, that an A5 page is an ideal size to work with.

As easy as A, B, C… and D



A: **Start off by making an outline of the type of document you want to create. How many pages, what sort of binding, which fonts, how many pictures, text files, type of printing, page design, and so on.**

B: **Use a word processor to create your text files. Keep different articles in separate documents but include captions, headings etc. Get it as perfect as you can before moving on.**

C: **Create your pictures. These can be bitmaps or structured drawings. The important thing is to bring them together in a form ready to import on to the page. That means getting the cropping and colours right.**

D: **You can now run your DTP program and create a template page or a template document. While you are at it, add any graphic objects you use on many of the pages and create some tags for every different piece of text such as captions, subheads, and so on.**

E: **You can now look forward to next month's DTP tutorial when we will take this one more step forward and actually begin to create some pages.**

As you can see, just coming up with the page size was a lengthy process, but if you don't think it through before you commit yourself to the layout process, it may be too late a week or so into the job.

Against the elements

The second task was to come up with the elements for the book – the text and pictures. It doesn't sound too big a job, but again, the more thought you give it, the more you find needs to be done.

Take the text, for example. We had to decide broadly what text was needed to be created before the layout process was begun and what, if any, text was to be created on the page itself. In the end, all the text bar a few headings, was created in Protext. No formatting was applied to it because that was something that could be done later in the DTP package.

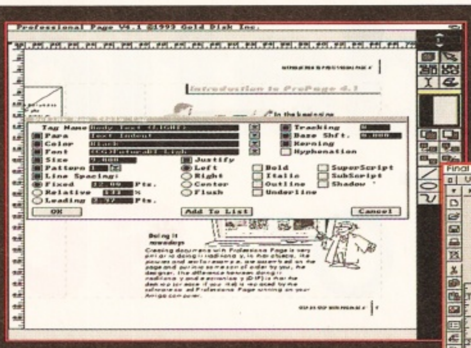
Those of you with word processors such as Final Writer and so on, are probably thinking that it would make sense to format the text as you create it. However, you have to remember that many writers don't want to worry about formatting text while they are trying to put their ideas into words. Also, the book I'm using as an example was being created in a DTP package and typing the words on to the page in that type of program is not generally a good idea.

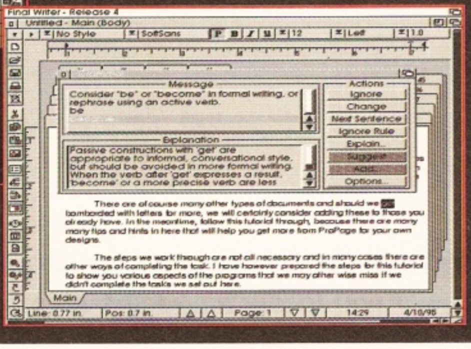
Making pictures

Just as important as the text is the preparation of the pictures. A lot of thought has to go into the creation of images for a document; more thought than most people realise. For our book, there were several things that were likely to affect the type of pictures we used. The book was being printed in black and white using PostScript devices and so it was better to have the pictures as 256 greyscale images, not colour ones.

There was also the question of what resolution to make the pictures. A lot of the material had to be scanned and when doing so, we kept in mind a couple of important rules. The first was to scan any two-colour (black and white) line art at the same resolution as the printer being used, which was 600dpi for same size reproduction.

But photographs were treated differently. Unlike two-colour line art images, photographs can be scanned at a much lower resolution. Let us say that we have a picture that is two inches square, and when we place it on our page, it is also going to be two inches square – the same size reproduction in other words. For this, I scanned the images at 100dpi for printing on the lasers. If the printer had been a 300dpi device, the scanning resolution would have been even lower; while for high resolution output, like for an imagesetter, the scan resolution would have needed to have been much higher, say 300dpi.



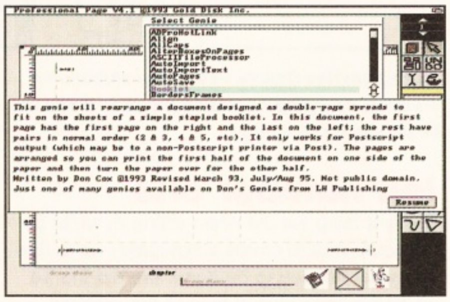


Left: One of the most important things to do before importing any text on to your page is to make some tags. These enable you to apply many attributes to a piece of text in the one operation.

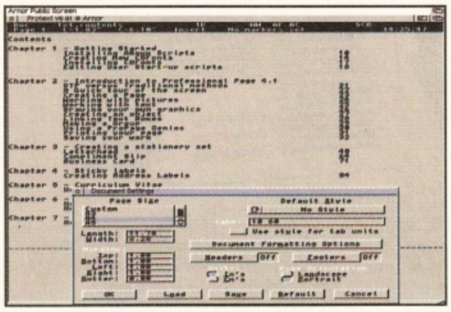
If you're unsure about your grammar, then check it but don't take it to heart if it comes up with lots of errors. Most results from grammar checkers can be taken with a pinch of salt.

Where to buy the programs you need

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When planning out the template document, I took into account a genie I have that will create booklets automatically for me. Also, notice along the bottom of the page, a series of elements. These are pieces of 'furniture' that are used regularly on the pages of a document.



If tabs are included in the text in ProPage, everything can be aligned the way you want.

Jargon busting

Tag – A feature which enables you to apply more than one attribute to a piece of text. The attributes for that text can then be changed by simply changing the attributes in the tag.

Template – Also called a master page. These are pages that others in a document are based upon.

Traditional publishing – When I refer to traditional publishing methods, I am talking about the pasting up of elements on paper using a glue-like substance.

Although scanning something at 300dpi and printing it on a low resolution printer won't give you bad results, it will be very memory hungry, something else you need to consider before venturing off into the unknown. Do it wrong, and you'll be running out of memory before you know it.

Doing it in style

One of the last things we needed to do before starting the book was to create a single template to base each of the chapters on. In the case of the book, that template was an A4 landscape page, accommodating two A5 pages when folded. I chose this option because I knew I had a genie by Don Cox that would make the landscape pages into booklets with all the A5 printed pages in the right order on the paper.

But that isn't all that is required. Before you create any document, you should make up what are known as Tags. In ProPage – the program we used for the book – there are two types of Tags: Style and Paragraph. These Tags contain a list of attributes for a specific piece of text and in ProPage, at least, can be added to text using keyboard short-cuts. This means that when you add the prepared text to your page, it can be formatted very quickly.

Only when you have finished preparing your document, and have all the text, pictures and templates created, should you dive into laying it out. If you don't do all this preparation work, you might find that you'll be half-way through laying out a page and realise that you need to create an image. This may mean having to quit the DTP program, something which is not going to help the speed of production, especially as your deadlines draw nearer!

So don't forget, before you start following the recipe for laying out a page, make sure you prepare the food first! If you don't, it could end up looking like a dog's dinner…

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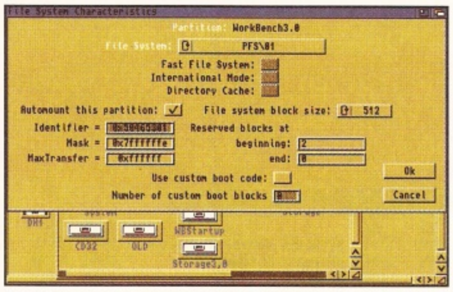
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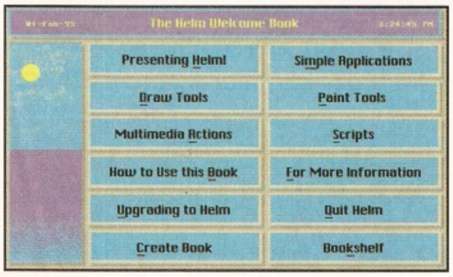
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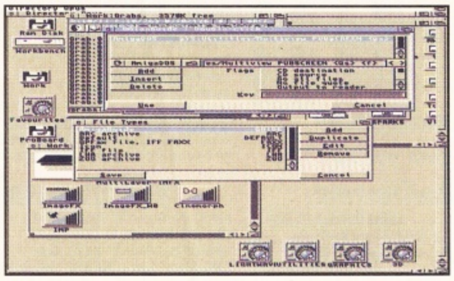
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A true multimedia authoring system for the Amiga, Helm earned 91 per cent when reviewed by our Consultant Editor Nick Veitch in Amiga Format. Create custom image editors, personal information managers, presentations, kiosks, free-form databases, or educational courseware. Helm is both an authoring system and a graphics program, combining draw, paint and image processing tools with a scripting language, a hypermedia database manager and an assortment of user Interface objects.

Description	Helm
AS price	£99.95
Order code	AS503
Special subscribers price	£94.95



Directory Opus 5

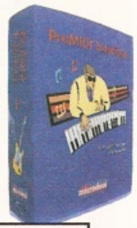
save £10

The latest incarnation of this superbly powerful and well-designed file manager received 92 per cent and an AS Star buy award in issue 51 (see page 73 for back issues). Directory Opus 4 was brilliant and version 5 is no exception. Now this program can be yours for £10 less than the RRP of £59.99.

Description	Directory Opus 5
AS price	£49.95
Order code	ASOPU
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MIDI Interface

Test your Amiga's musical talents with the ProMIDI Interface. Add synthesizers and drum machines to your Amiga and use the samples with Amiga Format's Music-X (AF58) and OctaMED (AF29) Coverdisks.



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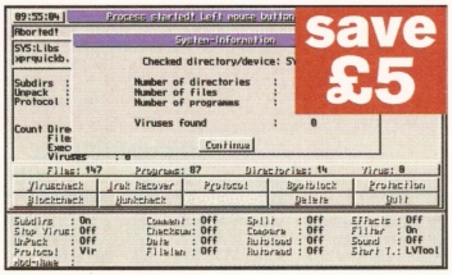
Description	Midi Interface
RRP	£24.95
AS price	£19.95
Order code	ASMIDI
Special subscribers price	£17.95



Music-X 2

Music-X 2 is a full MIDI sequencing package for controlling synthesizers, drum machines and any other MIDI equipment, or you can use it with internal Amiga samples.

Description	Music-X 2
RRP	£149.99
AS price	£49.99
Order code	ASMX2
Special subscribers price	£46.99



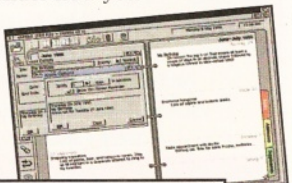
Antivirus

Siegfried Antivirus Professional – to use its full name – is an essential buy for those who suffer from virus attacks. It can be used with all types of Amigas with a 1.3 or advanced Kickstart version and 1Mb RAM. Save £5 off the RRP of £39.99 by buying from AS!

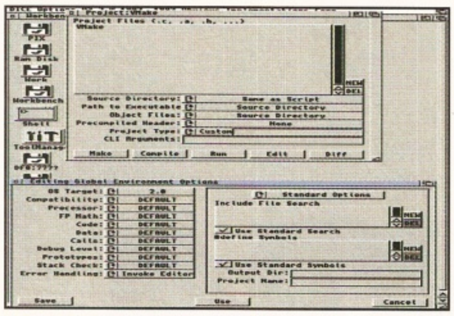
Description	Siegfried Antivirus Professional
AS price	£34.99
Order code	ASHVIR
Special subscribers price	£31.99

Digita Organiser

An Amiga Shopper Star buy, after using this program you'll wonder how you ever kept your appointments in order. Easy to use, but full of features, this is truly the king of electronic filofaxes.



Description	Digita Organiser
AS price	£34.99
Order code	ASDO
Special subscribers price	£31.99

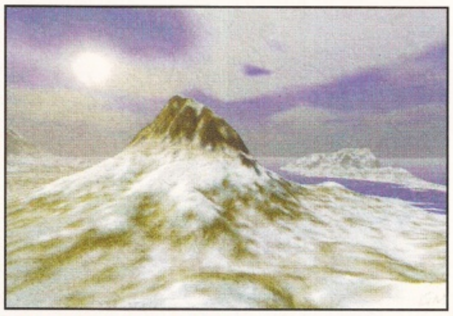


DICE 3.01

Save over £30 when you buy the complete version of our DICE Coverdisk from issue 47. The full package comes on five disks, with a 450-page manual, and new features, including: no limit on the number of procedures in each file; a revision control system; link libraries for 1.3, 2 and 3; extra link libraries; higher maths functions such as FPU; support for bitfields, pragmas, etc.

save £30

Description	Dice 3.01
RRP	£129.99
AS price	£98.95
Order code	AS501
Special subscribers price	£94.95



Vista Pro Lite

This truly amazing fractal landscape program from Meridian enables you to build your very own scenery on your trusty Amiga. After you've created the absolutely perfect landscape, you can animate it to create stunning fly-bys, or simply use it as backgrounds in your own games, pictures or 3D renders. *And* it even works on standard A1200s. Definitely one not to miss!

save £35

Description	Vista Pro Lite
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AS price	£24.99
Order code	ASVIST
Special subscribers price	£23.99



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Turn your CD32 into a CD-ROM drive. If you've got at least 1Mb Chip RAM and Kickstart 2 or 3, you can use Communicator on your Amiga and connect your CD32 with the serial port leads provided.

Communicator III also includes AGA Viewer (you can use it to view CD pictures and animations in 16.7 million colours), Virtual CD (to select which menu the CD boots with), and lots more.

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save £10

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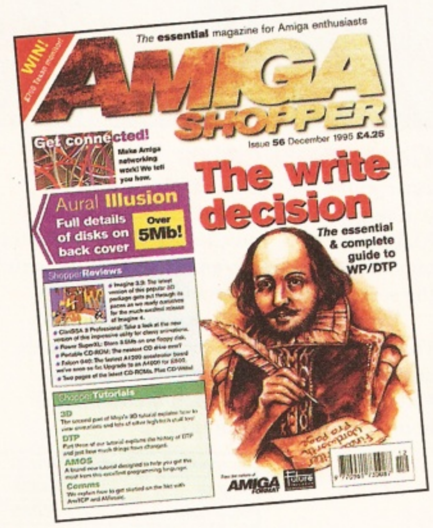
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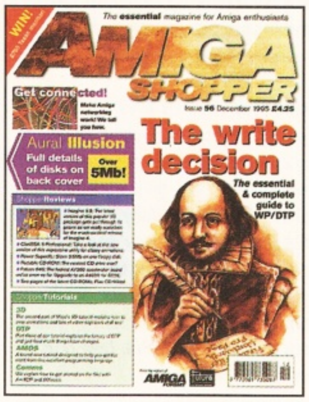
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Discover the difference between WP and DTP and find out which package you need; try networking using our guide; learn more about 3D, Comms, DTP and AMOS; plus, Aural Illusion, the excellent sample editor and effects package on the Coverdisk! £5

Issue 55



Choose a new monitor with the help of our Supertest; discover the most efficient ways to store your data in our main feature; Mojo starts another 3D tutorial; more on DTP, Comms and C; a completely revamped PD Select; plus HiSoft BASIC on the Coverdisk! £5

Issue 54



Complete music round-up and Supertest; why Amigas are the best home computers in the world; reviews of Real 3D version 3, Iomega Zip drive; DTP, Photogenics, DICE, and Comms tutorials; on the Coverdisk – Protext Utilities and masses more £5

Issue 53



Art package Supertest; pop stars who use Amigas; exclusive PowerStation preview; reviews of Aiwa CD-ROM, ProGrab 24RT Plus, masses of CDs; Photogenics, Assembler, DICE and Comms tutorials; on the Coverdisk – Protext 4.3 part 1 and loads more £5

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Scanners Supertest; special report from Escom; emulators feature; reviews of Organiser, SyncMaster 17GLsi, Final Data 2, a staggering 19 new CD-ROMs; Photogenics, Assembler, DICE and Comms tutorials; and two completely jam-packed Coverdisks £5

Issue 51



Printers Supertest; Commodore sold! story; ARexx feature; reviews of CyberStorm 060, Directory Opus 5, Termite, Broadcaster Elite, DiskSalv 3, Hi-Q PowerStation, CD-ROMs; AS versions of Organiser and Twist 2 on the Coverdisks £5

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Straight talk

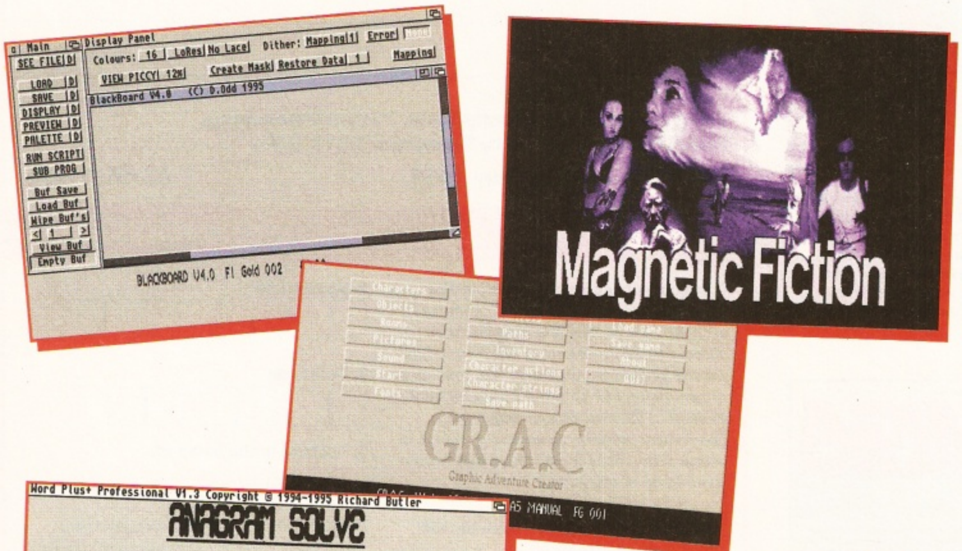
Better quality software at more reasonable prices is the service that Steve Bye aims to provide at F1 Licenceware. ***David Taylor*** *finds out just how they do it and what they've got planned for the future.*

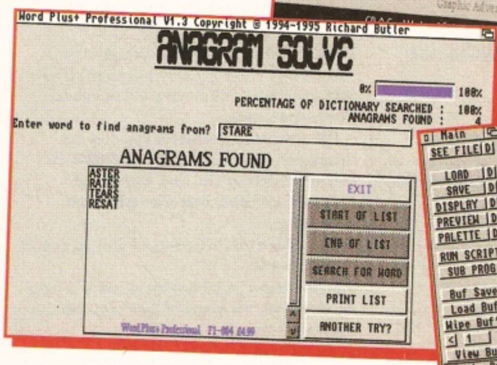
The Amiga became popular and has remained so during its absence thanks to a thriving budget software scene. While this is dominated by Shareware, there is a different breed of software aimed at the level between PD and commercial software, Licenceware.

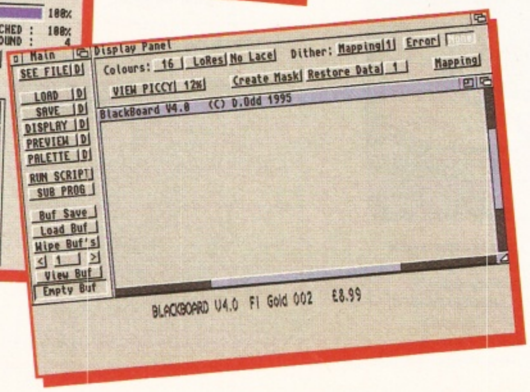
Licenceware attempts to bring this mid-range software to the users at an acceptable price, while supporting the authors by paying a licence fee for every copy sold. The idea is that it provides software for less than the usual registration fee, but pays the author more than Shareware, because it is copyrighted software and should not be copied to other people.

F1 Licenceware have become a popular provider of this type of title and we thought it was time we tracked them down to find out more about F1 and Licenceware in general.

When did you set up F1 Licenceware and why did you do it?
We – my wife Belinda and I – set up F1 because, as a programmer, I couldn't find a Licenceware scheme that suited my needs. I wanted one that offered a good service and showed programmers the respect that they deserve. We started setting up during November 1993, but we didn't get our first titles out until March 1994. It was a long, hard slog to convince people that we were going to be successful.







Licenceware covers the whole spectrum of software and should have something to offer nearly every user.

How many titles do you now stock?
We currently stock 115 exclusive titles and have 12 official distributors. We have some really big titles in the making, such as the long-awaited Relics Of Deldroneye 2, GRac 2, a graphical adventure creator, an AGA extension for AMOS, Teeny Weenies by Malcolm Lavery (which is a Lemmings-type game and looks stunning), and plenty more.

How do you see the role of F1?
As far as we see it, our role is to look after programmers, making sure they get paid their correct royalties on time. We give them a free and fast evaluation service (usually we manage to come to a decision within a few days). We also have to keep our distributors up-to-date with our latest titles. We promote our products the best we can and just as importantly, give our direct customers a friendly, helpful, fast and efficient service.

You mentioned games among your titles. How diverse is Licenceware?
The F1 range should have something to interest everyone. We have many different programs. There's KnitPic (a very clever program that turns an IFF picture into a proper knitting pattern) and Magnetic Fiction (a disk full of brilliant short stories written by up and coming authors).

We do have games, such as Relics (a Monkey Island clone), Gonks and Falling Down (both Amiga Format AMOS competition winners), Aquanaut, Giddy 2 and Operation Firestorm (which are all written by commercial author Phil Ruston).

On the utility side, we have GRac, which allows you to create your own Monkey Island adventure games, even if you have no programming experience. There's Introducing Workbench, which is, in our opinion, the best beginners guide for the Amiga – the first version was included on your own Coverdisk, of course. Not forgetting Word Plus Pro, a word puzzle solver, PowerBase, a powerful and easy to use database, BlackBoard, a very powerful image processor, Guitar utils, GCDir, Music 2 Tab, and many more – video titlers, tutorials, programmer's tools, disk mag creators, quiz makers, educational programs, and so on.

How much can a Licenceware author reasonably expect to make from a title?
Licenceware is a strange concept and what the author gets in royalties varies tremendously between titles. We have titles that haven't sold a copy for months and others that sell well all the time. I tell all our new programmers not to expect too much (just some beer money) and then if their title doesn't sell well they are not too disappointed. If it does sell well, most authors are over the moon, of course. A lot depends on the reviews we receive from the magazines and how much our distributors promote our products.

Shareware has been around on the Amiga since the beginning. Why do we need Licenceware as well?
I don't see Shareware being very successful from an author's point of view. Very few programs make a lot of money from Shareware

and the ones that do sell by the bucket-load are usually the ones that should have been released commercially – some eventually end up going that way.

Licenceware takes the sting out of the Shareware concept for the programmer and the customer. We act as the middle man. We do the promoting, copying, paperwork, packaging and deal with customer support. The author is then free to continuing programming their next project without the hassle of copying disks and dealing with promotion and customers. We ensure the author gets a cheque every three months and the customer who buys the author's product gets a good service. Everyone is happy.

As an added bonus for our programmers, customers buy from us because they know our products are both exclusive and of high quality. An F1 title is looked upon by many as a seal of quality. If you take into account the time and money an author has to invest in producing a Shareware title, they could easily do better dealing their program through us, even if the title only sold moderately.

How does a programmer go about submitting a program?
To submit a program for evaluation the author should send the software to us with an SAE. As I said, we try to get back to them within a few days. Barring changes, the program could be in the scheme within as little as a week. We don't mess about! If you supply an SAE you get your disk(s) back.

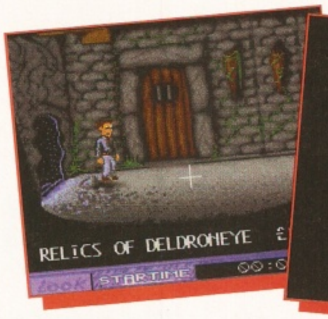
We never make a single copy of your work until you have agreed to join us and all evaluations are done in strictest confidence. Alternatively, you could call for our free catalogue disk which has all the guidelines for F1 programmers and it increases your program's chances of acceptance if you take note of the suggestions.

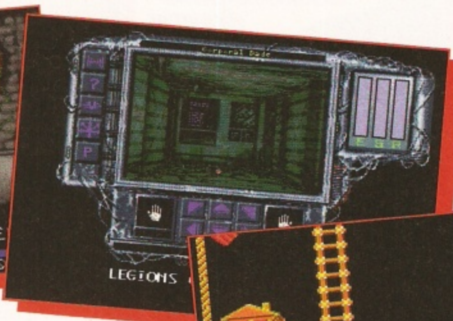
What percentage of submissions do you tend to accept?
Currently we accept around 1 in 10 programs which are submitted to us. Because we are now more established, we aren't particularly worried about the quantity of titles; it is quality that we are looking for.

What do you consider to be your best titles?
This is a difficult question because I obviously think they are all good. But, my personal favourite is Relics Of Deldroneye. Currently our best-selling titles are: Introducing Workbench V2 and GRac, and deservedly so.

Of our newer programs, Magic Paint Box with a printed manual looks like it is going to be a big seller, mainly thanks to it being the best ever Amiga kids paint package and, of course, Amiga Shopper's 96 per cent review – our highest rating ever – thanks!

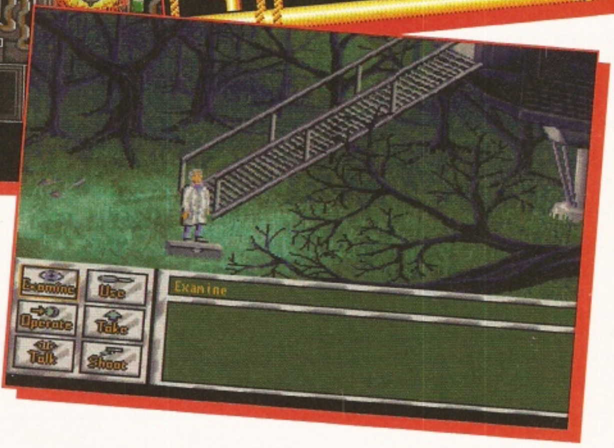
Don't thank us, I'm still addicted to playing with the program. I love that grass. Give me more. This month we've got a special edition of AMOSzine on the Coverdisk. Tell us a bit about the title.











F1 stock quite a batch of programs, but what might interest you more is that the very competent Lethal Formula (right) was created using a Licenceware product called GRac that claims to be accessible even to people with no programming experience.

AMOSzine is an AMOS-dedicated disk mag which I started off in June 1994. Issue one was pretty dire, but then I got help from some top coders that produce F1 titles. AMOSzine fits in well with F1 because lots of our titles are written in AMOS. AMOSzine came about because, at the time, the other AMOS mags seemed to have run out of steam. AMOSzine was, and still is, bursting with enthusiasm and ideas.

AZ was the first disk mag to get exclusive full-source code to well known games; issue four had three complete games on it. AZ is also the only AMOS mag that gives major contributors a free copy, as long as they supply the disks and postage to the editor. I was editor of AZ until issue six when my good friend Andy Gibson took over the reins and is still doing a good job.



Issue nine is now out on three disks and costs £5.99 +50p P&P. I think issue four was the best issue, so if anyone wants to try a copy, get that first – you will be hooked.

The Coverdisk taster is just that, every full issue of AZ is crunched and the two disks full of source code are archived giving maximum value for money. I hope we get lots of new contributions from AS readers because this will help to keep AZ alive. Send your AMOS articles to Andy Gibson, the editor – not F1 – his address is in the disk mag.

PD and Shareware are said to be contributing factors as to why the Amiga has been kept alive over the last year. How do you think Licenceware has helped?

Licenceware is still a bit of an underground movement, something akin to independent record labels in the good old punk days, and so it hasn't done that much so far to keep the Amiga alive. But, the way things are going with commercial releases, I see Licenceware as the future of quality Amiga software at a reasonable price, with a lot more flexibility in price and subject matter than commercial software. So, I think eventually Licenceware could do a lot to help the future of the Amiga.

What plans have you got for the future?
I am continually trying to improve the way F1 works for the benefit of customers and programmers alike. We have just started a new Licenceware scheme called F1 Gold. Each title is of extremely high quality and in normal circumstances any F1 Gold title should be able to compete commercially. The programmer gets a better royalty and the customer gets a nice printed manual and branded disks. At the time of writing there are four F1 Gold titles released and the early signs are that they are going to be a great success with our distributors, customers and programmers alike.

Another project is the F1 CD. Due for release any day, it contains our first 100 titles. The CD is unique in that every programmer will get a share of the sales. The software, if bought on floppy disk, would cost around £500. F1 CD Vol 1 will cost £32.99 and will be available from F1 direct and all good PD suppliers. For more on F1 products, call ☎ 01392 493580.

This month's Coverdisks contain a special version of AMOSzine (see page 10). Next month we have a demo version of GRac 2. ■



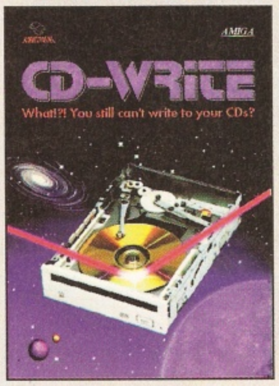
FrozenFish

The FrozenFish CD-ROM, August 1995, contains all 1.100 "Fish Disks", one lha archive per disk, with a product info file. There are also 102 MB animations and graphics utilities aswell as 74 MB pictures included. £19.95



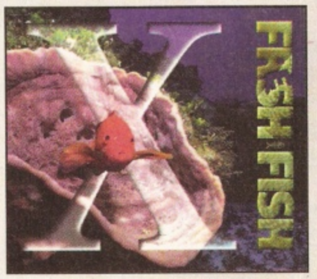
NetNews Offline Vol. 1

NetNews Offline Vol. 1 is the first disk of a new bimonthly published series of Amiga CD-ROMs which contains all Amiga-related newsgroups from the internet. Every volume features about 50.000 articles which contain hot rumours, important information about all aspects of the Amiga, press-releases, discussions and flame wars, ... A newsreader is included. NetNews Offline is the cheap alternative of getting in touch with Usenet. £14.95



CD-Write

What!?! You still can't write to your CDs? CD-ROMs have long been an essential part of Amiga computing. Many users already own a CD-ROM drive, and the number of software packages available on CD is increasing steadily. Until now, though, it was not possible to write to CDs. We have solved this problem with our new revolutionary product: Ralph Babel and Stefan Ossowski's Schatztruhe are proud to present what can be considered a marvel of technology: CD-Write enables you to virtually write to CDs with an ordinary CD-ROM drive. From now on, you will be able to write, delete, and modify data on your CDs. This product will take you into a new era, and you will be able to utilize CD-ROM technology to its fullest. £44.95



FreshFish 10

The FreshFish CD-ROM-series, produced directly by Fred Fish, provides Amiga users with hundreds of megabytes of the latest freely redistributable software. Published approximately every two months, each volume is a two CD set containing new submissions since the latest volume, as well as an ever growing selection of tools, libraries, documentation and other useful material that is updated with every release. £17.95

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CDBoot 1.0

CDBoot is a fantastic new product that enables you to use almost any CD32 games on an A1200 or A4000 (with AT- or SCSI-CD-ROM drive and any filesystem). You can create a configuration file for each CD, containing information on the Joypad emulation. You can also save the highscore of each CD32 game. The usage and installation of CDBoot is very easy, also for beginners, due to the excellent English manual. Since the compatibility is very high, you can use 98% of CD32 games currently available. CDBoot is an excellent software solution for all Amiga-Freaks, who would like to enter the world of CD32 games! £34.95



FreshFonts II

The FreshFonts II CD-ROM contains 632 megabytes of fonts for almost any computer system. Most of the fonts are freely distributable, except for the Thienen fonts, which are exclusive on this CD. Each of these fonts is included in four different formats: DMF, Agfa IntelliFont, Adobe and TrueType. There are 231 font families on this CD (each containing of up to 8 different styles). They are classified in seven categories: Deco (63 families), Non-Latin (33 families), Pictures (16 families), Sans Serif (29 families), Script (36 families), Serif (36 families), Thienen (19 families). £19.95



Gamers' Delight II

This CD contains 1070 games for the Commodore Amiga from differing categories. Action, Jump & Run, Card Games, Puzzles, Strategy Games - a whole range of computer entertainment awaits! Gamers' Delight will hold you captivated for hours and guarantees long-lasting pleasure. 70 games are commercial versions - no public domain & no demos! This CD can be run on any Amiga with CD-ROM drive,1 MB free memory and Joystick/Joypad. £26.95



da capo

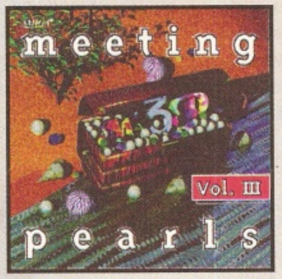
The da capo CD-ROM is a source for high-quality music, both for listening enjoyment and for samples to use in creating your own music. This is not just another random collection of modules. Many modules and samples are exclusively to da capo. Included are more than 1400 of the best available modules and 2000 high-qualioty samples. £27.95



XiPaint V3.2

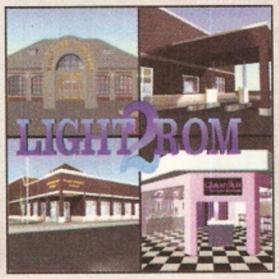
XiPaint is a leading edge, 24-bit paint program. It's suited to the demands of novice and expert alike, and within a short time, you too will be able to produce colourful and creative art in 16.8 million colours. This version of XiPaint provides a professional paint program at an unbeatable price/performance ratio.

Overview of Features: · Diverse paint functions including colour, contrast and saturation adjustment · Mask, outline, recolour and fill functions · Airbrush with adjustable spray functions · Light-table function for manipulating mantages and animations · Text functions with anti-aliasing using Compugraphic fonts · Support for a variety of graphic formats · Unlimited Undo · Diverse manipulation of alpha channel · Supports many graphic cards · Layers to combine different projects · ARexx port · Drag & Drop colours · External filter module · Extensive documentation · 60 textures, 50 landscapes, 30 other pictures and many fonts included. £49.95



Meeting Pearls Vol. III

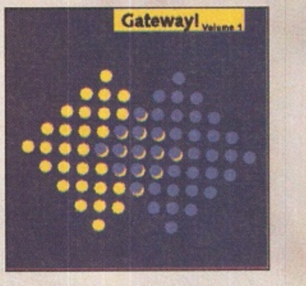
The Meeting Pearls Volume III contains 650 MB of the finest FD software via a special user interface, which has been created to allow you to find the program of your choice with ease. The contents: 10 MB Packer, Cruncher, Archive Programs · 3 MB CD-ROM Utilities · 21 MB Communication and Network Programs · 5 MB Debugging Tools · 29 MB Development Tools · 13 MB Floppy, Hard Disk ans SCSI Programs · 8 MB Educational Programs · 9 MB Games · 35 MB Graphics Programs · 39 MB Internet Movie Database, Updated Version · 7 MB Midi Tools and Programs · 27 MB Mods · 12 MB Music Programs · 21 MB Pictures · 13 MB AmiTCP and more for Networking · 60 MB Documentation, CD-ROM Databases, etc. · 96 MB PasTeX 1.4 · not previous available on any CD-ROM · 15 MB Utilities · 30 MB HTML-Pages · Collections of datatypes, benchmark programs, icons, programs for amateur radio and electrical/electronic engineering are also included. £9.95



LIGHT ROM 2

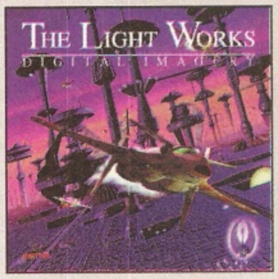
The LIGHT ROM 2 CD contains almost 650 megabytes of 3D objects, images, images equences, scene files, surface attributes, bump maps and textures in IFF and TARGA formats, DEMs, and Lightwave rela- ted text files. LIGHT ROM is an invaluable resource for Lightwave users, and as a bonus, includes material for Sculpt 3D and Imagine users. £44.95

SCHATZTRUHE



Gateway!

Gateway! offers NetBSD 1.0, a full featured UNIX-like operating system with both sources and binaries for the Amiga, i386, Sun 3, and other architectures. Go netsurfing with the large selection of supplied networking tools. Other supplied packages include a binary release of the X window system (X11R6) for the Amiga, with many additional clients, and packages such as perl, emacs, games, mail programs, and many megabytes of important text files such as RFCs and FAQs. A complete installation guide is available on the CD. There are also some AmigaDOS internet utilities, such as clients for AmiTCP and Envoy. £9.95



The Light Works

Raytracing - A fascinating area of the computer graphics. Pictures from the computer, perfectly rendered, fascinate people all over the world. The Amiga was the first computer to be used for raytracing, and today it is still a leader, with many high quality programs. A real artist of raytracing is Tobias J. Richter from Cologne/Germany, whose detailed objects stun the people. Especially his space ships of famous science fiction films are used to demonstrate the capabilities of a raytracing program. The objects are highly detailed and extremly realistic due to the application of complex surface textures of the models. Until now it was difficult to acquire these objects in order to create ones own scenes or animations. £29.95



Texture Gallery

Texture Gallery is a 2 CD-ROM set containing over 1.3 gigabytes of textures designed for graphic artists. Included are hundreds of 24 bit textures in several different formats, including IFF, TARGA, JPEG, PICT, SGI, and TIFF. These textures are perfect for use with 3D programs like LightWave 3D and can be used to create bump maps. All of the textures are represented in thumbnails renderings for easy previewing. £44.95

All products are available in your local Amiga-shop or through national mail-order-companies

International Distributor:

GTI

GTI
Grenville Trading International GmbH
Zimmersmühlenweg 73
61440 Oberursel · Germany
Tel +49-6171-85937
Fax +49-6171-8302
EMail: Compuserve 100336,1245

Public Domain

David Taylor *fights off a really dreadful cold ("It could be flu, you know") to bring you the latest from Amiga PD and beyond. Yes, we don't even let them off when they're dying in their seats.*

The response to our new-look PD section and electronic directory to PD houses is still growing, which means that we've got yet more fantastic programs to bring you this month. The directory has been updated again, with over 100 entries now.

Pro-Football

Ali Prior submitted this one, and in a shameless attempt to bribe us sent some chocolate footballs with it. It's a pity I'd just gone on a diet. Still, full marks for effort – the rest of the office enjoyed them. Let that be a lesson, you can't bribe us! Hmm, but his program is the first to be listed in this month's PD Select. Oh well, maybe we are corruptible after all.

Joking aside, it looks like Ali has created a very professional package. This is another addition to Ali's growing arsenal of prediction programs, and this one aims to help you beat the odds when betting on football.



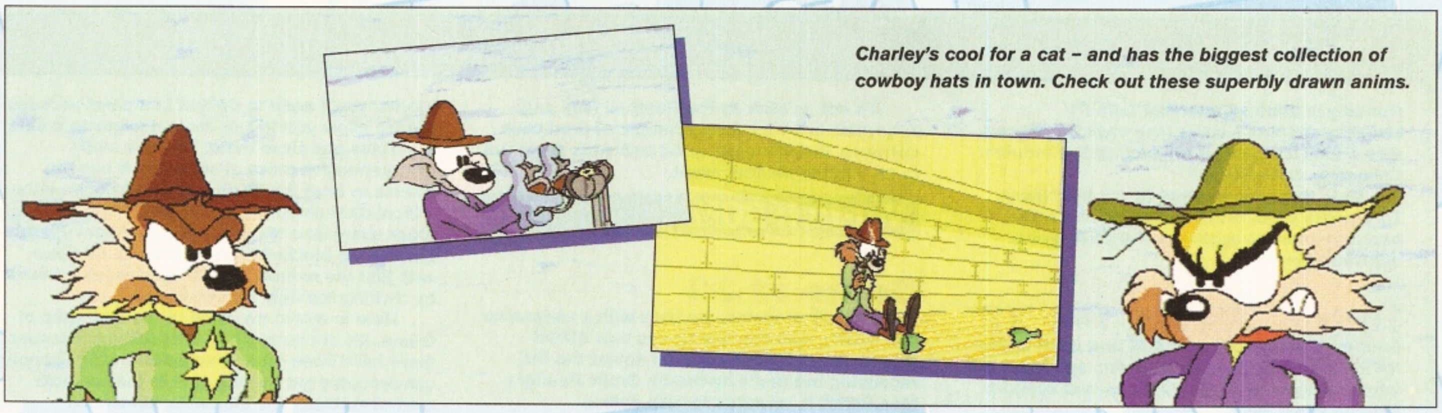
Pro Football brings an ease of use to prediction software that makes it ideal for those who know a) nothing about football, b) nothing about computers, or c) nothing about either.

Selecting the teams for the Pools is really easy. You have to set up the lists of matches, which I expected to take ages, but it is remarkably quick and easy, thanks to more than a little thought put into the program. You enter the first letter of the team, and the program gives you a list of possible teams so you can click on the right one. This way you can set up the Pools slip within minutes. Pro-Football then gives you a list of likely draws, including some

Who, what, where, when, why, how...

Product	No of disks	Type of product	Price*	Supplier	Contact	Verdict	Page
Pro-Football	one	Application	Free	Ali Prior	See PD directory	95%	78
Cowboy Cats	six	Animation	£5.90	Roberta Smith DTP	0181 4551626	75%	79
GFXLab 24	one	Application	£1.50	Pixel Digital	0151 2594017	92%	79
Lottery Winner Pro	one	Application	£5	Shoah PD	See PD directory	80%	80
Grime	one	Application	£4.99	Shoah PD	See PD directory	94%	80
DigiPix 8	two	Slideshow	£2.50	Pixel Digital	0151 2594017	70%	80
SquawkyTalky	one	Utilities	£1.40	Roberta Smith DTP	0181 4551626	80%	80
Magnetic Fictions	one	Fiction	£3.99	F1 Licenceware	01392 493580	70%	81
The Breath Of The Muse	one	Demo	75p	Smileys PD	See PD directory	77%	81
Col-a-morph	one	Application	£1	PD Power	See PD directory	78%	81
Clipart Slideshow	one	Clipart	£1	PD Power	See PD directory	80%	82
ImageStudio 2.2.0 book	two	Application	£5.99	LH Publishing	See box	77%	82
Vark 9	one	Utilities	£1.40	Roberta Smith DTP	0181 4551626	98%	82
Remdate II	one	Application	75p	Online PD	01704 834335	90%	83
Power Procedures	one	AMOS extension	95p	Saddletramps	01709 888127	81%	83
Your First Pony	two	Educational	£2.50	Seasoft Computing	01903 850378	80%	83
RAF Fastjets	one	Educational	£1.50	Seasoft Computing	01903 850378	83%	84
Fractal Universe	386K	Application	n/a	aminet/gfx/fract/	fu1_62.lha fu_exoctics1.lha (& 2-4)	80%	84
SplatterPaint	506K	Application	n/a	aminet/gfx/edit/	SplatterPt167.lha	70%	84
Browser II	335K	Application	n/a	aminet/util/dir/	BrowserII.lha	95%	84

Some prices include P&P; buying more than one disk from a PD house is likely to reduce the price per disk; check compatibility of program with PD house before purchasing. More information on all the PD houses and their prices can be found in the PD Directory on the.Coverdisk, including their postal addresses and payment details.



Charley's cool for a cat – and has the biggest collection of cowboy hats in town. Check out these superbly drawn anims.

possible "Shock draws". This way you get an impression of who is likely to get away wins, home wins, draws, and so on. Then you save the list and enter your pools coupon. When you've got the results, you can update the database that Pro-Football uses to predict, to try and make it more accurate in future.

So, how does it perform? Well, not badly – better than my guesses anyway. Some of the predictions were correct and some not far out – it even got a shock draw right! I wouldn't expect to win the pools every week – I doubt that Ali would be selling the program if you could. It probably does narrow your chances a bit if you don't know much about football.

Pro-Football also makes doing the pools a bit more fun and is quite entertaining to use, although you might get bored of entering the data after a while. But think about the money!

As well as Pools predictions, you can also use it for predicting results for betting at the bookies. This seems like an ideal way to lose even more money.

Pro-Football is a top program that shows the quality of programming that's emerging from budget software on the Amiga nowadays. And if you don't believe me, you can get a free demo direct from Ali – see the PD Directory on the Coverdisk for details.

Verdict: 95% **Star buy**

Cowboy Cats

Well, well. Charley Cat is back again in his twelfth adventure. This time Charley is out West with some of his pals and Tiger, his enemy. The animation is a MoviePlayer anim and is split into four sections so that it should run on a standard A1200 (although it looks as if 2.5Mb is actually needed). It comes on six disks and loading each section involves a bit of boring disk swapping. If you've got a single disk drive, don't consider it; you'll be spending too much time swapping. You can overcome this by copying it all to hard disk and setting up some assigns – if you've got one.

The animation quality is superb, even better than the last, and the storyline is OK, and is funnier towards the end. I'm a cat lover anyway, so I think Charley's cool.

The anim itself is Shareware, so after you've bought the disks, you should send the £2 registration fee to the author, Anthony Whitaker, if you keep the anim. Just think about the five month's he put into creating it. However, with the cost of the disks on top, the price of a five minute anim tots up to nearly £8. This means a single animation costs the same as a three-hour video of cartoons, so you've got to consider how much you want to see an Amiga anim. It's a pity, because the price will put some people off taking a look at this excellent anim. Perhaps the cost of the disks could be shared between several friends.

Verdict: 75%

The PD directory

On the disk

You'll notice references to the PD directory this month. This used to be printed within the magazine, but had to be in very small text because of the amount of information it contained. To solve this, we've updated and re-compiled the list and included even more information. The whole directory has been included as a text file on the Coverdisk.

You'll find an Information Zone on the disk which contains both this PD directory and the User Groups. They are both in two formats, AmigaGuide and ASCII. The AmigaGuide enables you to point and click your way to the information, making it much easier to find the details you require. Read the Readme file for more information. You can, of course, print the information if you want to, and save yourself the trouble of writing an envelope! See page 10 for details.

GFXLab 24

Lumme. There's quite a few PD image processors appearing. This is one that seems very similar to F1's Blackboard (v.3), in looks at least. It runs on a standard A1200 and its strong point is speed. It's quite fast at applying the effects and it can also handle quite a few file types. The number of preset convolves, in addition to effects, is also impressive. There's many of the ones you'd expect to see, plus a few interesting new ones.

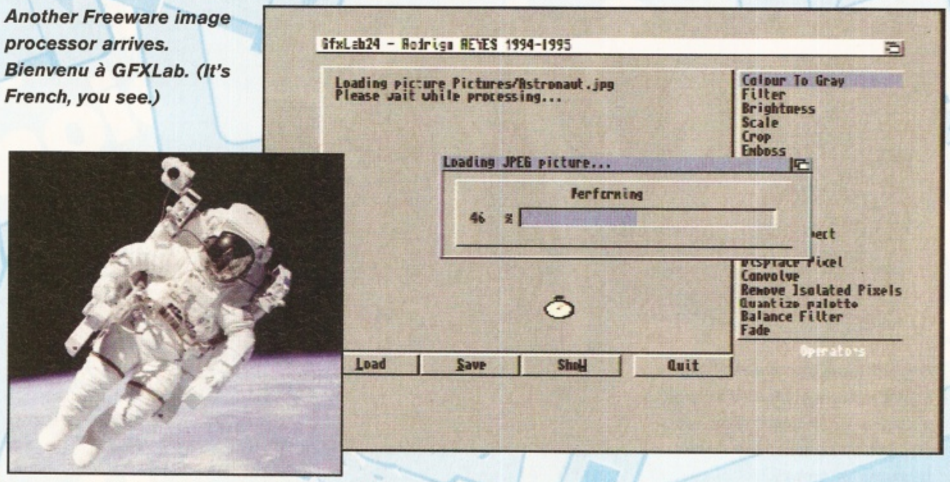
I was particularly taken with the 'sketch' that can turn photos into drawings. It's also impressive, because you can alter the thresholds of effects and so each effect can be made to work to different degrees. The JPEG loader is very fast. Add all the plus points to the fact that there are different processor speed versions supplied, and you've got a very competent package indeed.

It's very hard for any single PD program to rival commercial software – after all they had years of man hours and commercial backing. But, that said, these PD programs have come on in leaps and bounds recently and they are worth taking a look at before condemning them. This program is Shareware, but so that you can get a real feel for it, it hasn't been crippled at all, so the author is relying on your conscience. Having spoken to him, I've found that the next version, which should be available by the time you read this, is going to be Freeware. So it's suddenly even better value!

With the registration fees of all the programs so low (or non-existent in the case of Image Engineer – AS55, 96 per cent – and the

80

Another Freeware image processor arrives. Bienvenu à GFXLab. (It's French, you see.)



Licenceware

Not only is there an interview with F1 Licenceware in this issue (see page 74), there's also a full Licenceware product on this month's Coverdisk. Not enough?

Well, then you've come to the right place. This month's Licenceware column has some exclusive reviews again – so let's not waste any more time.

Lottery Winner Pro V3

Another lottery predictor? And they want a fiver for it? Mind you, how much do you spend on the lottery every week? You might as well spend a little on some 'help'.

This is a pretty extensive predictor with a variety of methods available, including using star signs. If you ask me, any random system is as good as the next, but this adds a bit of fun to the procedure.

The program holds a database of results, which you can easily keep up-to-date with the built-in editor. You can then check your predictions against past form and also alter any of the numbers and then include the new ones for checking.

You can't, however, keep a database of past entries and see how they match up to future draws. On reflection, maybe this is a good idea. I mean, you're going to be a bit miffed if last week's numbers come up this week.

It's not as slick as Pro-Football (see page 78), which is a very good example of prediction software. But it is quite good and adds some fun to an entirely random event.

Verdict: 80%

Grime v1.22

Wow. AMOS programs are back with a vengeance this month. And this one shows that AMOS programs can be competent. I detest the file requester, but that's by-the-by. Grafic Reality's Map Editor is intended to help games programmers create level maps without hassle.

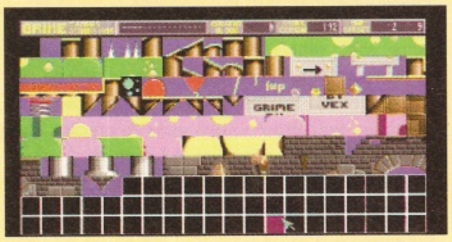
The idea behind level maps is simple. Levels are quite large and a full IFF of each level would require a huge file. This isn't feasible. Map editors help you take a different approach. Create a set of blocks (such as a left-hand corner) and then build up a level made from the blocks. Then just one set of blocks needs to be stored. Levels can be stored in ways such as:

block1 block5 block2
block5 block3 block4
block7 block6 block4

It's a heck of a lot less data. This method is popular with a lot of games such as the excellent High Octane PD racing game.

Grime doesn't allow you to design the blocks; you'll need to do that in a paint package. It does allow you to use these designs to create the levels and store them. This is a really comprehensive piece of software. It has the chance to alter the attributes of blocks on either a local (that single block), or global (that type of block every time it's used) scale. Choosing and placing the blocks is simple and can be done with just the mouse, swapping between screens by clicking the right mouse button.

Here is where we come to the strengths of Grime. It's not so much in the facilities, because there have been other map editors which people can probably get by with. It is in the sensible control method. The mouse buttons have different functions depending on whether they



The blocks above can be produced in a paint program and then used for a game.

new version of this program), you can get all of them and know that you've got a great collection of effects to use on your pictures for around £20. So, let's all welcome GFXLab 24 to the party. It's good to see you.

Verdict: 92% **Star buy**

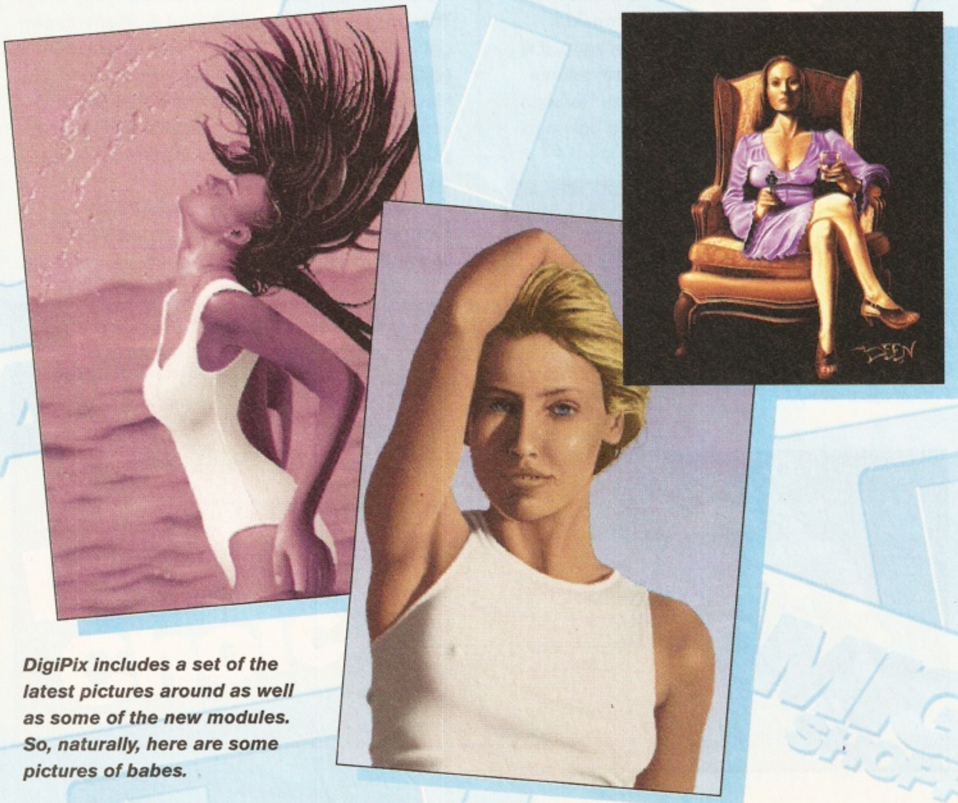
DigiPix 8

Here's a compilation of pictures and modules that is made up from the latest uploads to Aminet and BBSs. It is a bootable disk that has a point-and-click menu system which has been created by the PD library itself. It looks very professional, but I'm not going to go into detail about the interface, because we shall be reviewing the full and finished "Nucleus" menu system next month.

There's a reasonable number of pictures and modules, considering that it comes on only two disks. OK, so any compilation like this isn't going to hold your attention for days, but you should be able to while away an hour or so flicking through and I'm sure you'll end up keeping a mod or two, or a picture, depending which you're into.

Problems? Well, there were a few glitches. One of the pictures loaded up in the worn screenmode and so was only half the screen high and very squashed, and one of the modules kept getting reduced to white noise. If you have a picture viewer/module player, then you can sort this out.

Verdict: 70%



DigiPix includes a set of the latest pictures around as well as some of the new modules. So, naturally, here are some pictures of babes.

SquawkyTalky

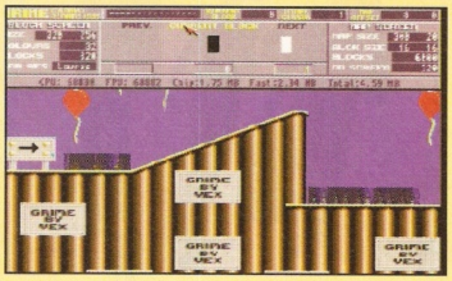
In the dim and distant past, I spent ages playing with the speech capabilities of my first Amiga. OK, so it sounded like a robot on drugs, but there was something interesting, or at the very least highly amusing, about hearing your Amiga talk to you. I type it; it says it.

This utilities disk from Roberta Smith DTP has a collection of speech programs and toys for you to mess around with. A lot of them make use of the narrator library and device, which was distributed with earlier versions of Workbench (up to version 2.04), but were removed from later versions. Dubious in legality, you can find these files on this disk, so you should be able to run the programs whatever your system.

In practice, a few of the programs crashed on my OS3.1, but the rest were very entertaining. Of the eight programs on the disk, there are four that I found of interest.

Sing will take a text file and attempt to print the characters in time to a tune that it plays. This is one of the most useless programs ever, but I still found it fun.

Speech Toy 2 is the best speech program that I've ever encountered. It has the usual conversion from English to a phonetic interpretation of the words. This is a simulation



Et voilà, a level appears from a jumble of blocks.

are on the screen or at the top in the menu bar. The main display disappears so you can see the whole screen when the mouse is below a certain level. At £5, I think this is ideal for home games programmers. It is less than the registration fee of many Shareware packages of the same ilk.

Verdict: 94% **Star buy**

Magnetic Fictions

Electronic Publishing is not big business. A lot of people want it to be. CD-ROMs are once more making an attempt to find a way of publishing without the need for the expensive printing procedure. Of course, CD-ROMs have the advantage of 'multimedia' publishing, that is including text, pictures and sound. Actually, that's not their unique selling point, because that very multimedia approach was attempted with video magazines and just look how popular they are ;-). Their new angle is interactivity.

The magnetic fiction is a lower-end attempt at breaking the strangle hold that book publishers have. Many books and authors don't get published because they are new names and can't be sold easily. This low-cost publishing format allows greater freedom, because a large profit isn't needed for it to succeed.

The text is presented via a pleasant front end, which allows you to flick through the book covers before choosing the story you want to read. The text is easy to read and doesn't strain the eyes too much, although you won't be able to read it for hours on end. That's always the problem that electronic publishing faces. Oh, and the fact that you need a computer to read it.

However, this medium is a chance for budding authors to try and get some feedback on their work, get some publicity and hopefully entertain people at the same time.

The quality of the stories varies. I don't want to criticise people's writing skills, but while some showed real flair and talent, none were outstanding (yet). The plots tended to be weak and facile, with little characterisation. Some were puerile, while others showed an attempt to be a little more than skin deep. In short, some of them are stories that are the efforts of a fledgling writer, the ones that should never be shown to anyone other than close friends. Others are worth a read. It would be quite nice to see some more mature and experienced writers submitting their work.

However, all the stories are quite short, so you won't get bogged down. If you like a read, try one of these stories. What can I say? It's not as bad as it could have been!

Verdict: 70%



Magnetic Fiction brings new fiction to you.

of the way the words sound using letters (not the phonetic alphabet), so Hello (English) becomes Heh low (phonetic interpretation). The rate and enthusiasm of the voice can be altered as can the sex and style. There are lots of options and not all of them seem to do very much or adjust the sound in the way you expect, but it is the speech program to use.

Narrator Test is similar to Speech Toy 2, but is designed purely to test out Narrator. As such, it's got quite a few options and runs fine.

Wread is perhaps the most useful program on here. It takes documents and reads them to you, at the same time as printing the sentence it is speaking to you on the screen. It tries to speak the sentences, not the lines, which works quite well, unless you've got a really long sentence, like this one, where the Amiga would start to get strained, as if it were running out of breath. (Gasp!)

It would probably be difficult to understand if you were just listening to the computer, but with the script being gradually scrolled up the screen, it becomes quite easy to go through a document without the full concentration that reading would require. It's ideal, perhaps, for proofing through a document you've written yourself and want to hear back.

This is a neat collection, marred by a few problems and the fact that these programs have been around for a while. Still, it's a packed disk and brings together a good collection of related programs. Worth investigating.

Verdict: 80%

The Breath Of The Muse

This is a single-disk AGA demo and – shock, surprise – it tries out some new ideas. OK, it's not a major amount of new stuff, but there are attempts to link the scenes together and to incorporate the pretty, still images with the real-time effects. Sometimes it works, other times not. The scene with the eyelid opening and closing is well done and some of the art is great. There are times when it slips back to the tried and trusted, or tired and rusted as I've just decided to call it.

Don't let this detract from a demo that packs a heck of a lot on to a single disk. It's great to see the effort put into not only creating the effects, but blending them together with fades. It's not 100 per cent successful, but A+ for effort. The music didn't work properly, not moving from mod to mod smoothly enough, but the only area that showed real fault was the last wireframe anim, that kept glitching and showing green and black squares.

This is not the best demo ever, but it needed some tight programming to get it all on to a single disk and it has made an effort to avoid all the clichés.

Verdict: 77%



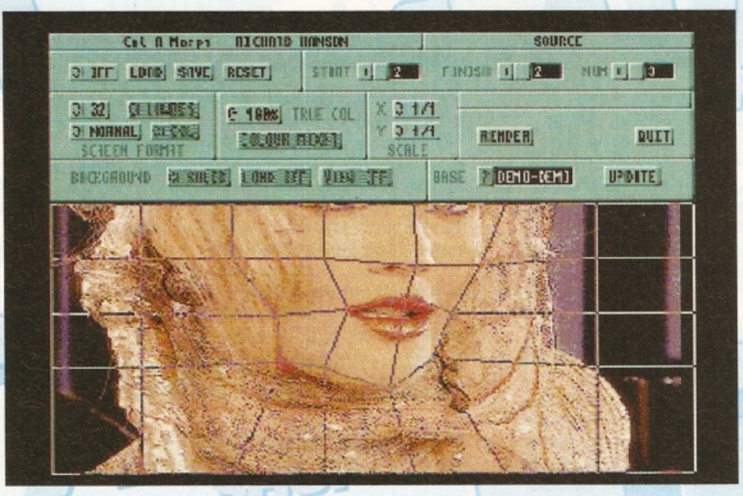
Breath Of The Muse shows off some new ideas and some cool artwork.

Col-a-morph

One of the programs on the Coverdisk of this month's Amiga Format is Minimorph, a greyscale morphing program that's been popular for quite some time and yet still sees updates. One of the reasons for this is that morphing images is a fascinating pastime. The other is that commercial programs of this type are astronomically expensive. While PD programs can't hope to compete fully with commercial software, they are often adequate for the low-level work or simple messing around that suits most people.

Col-a-morph is another offering, except that this program can handle colour images. The other surprise is that it's written in AMOS. A lot of people dismiss AMOS programs as inferior, but this isn't fair. The truth is that there have been a lot of duff AMOS programs written and

▶ 82



Colour morphing can now be achieved with low-end software.

released, more than with other programming languages, simply because of its popularity and ease of use. It has meant that less able programmers, still learning, have been able to put out programs, which have then failed to impress and tarnished the image of AMOS. The truth is that there are some damn fine AMOS programs (even games – a personal favourite is Colonial Conquest II). Col-a-morph is one.

This version is a demo only and has, in my opinion, just a few too many restrictions placed on it. I know that without any incentive to register, most people don't cough up the cash, but you have to leave the program in such a state that people can do something with it to get a feel for whether it is genuinely what they are after. This has the number of colours restricted, the save option disabled, the background mixing disabled, the number of frames kept to five, and so on.

However, you can still have a play around. The system works in the same way as most morphing programs, in that there is a grid overlaid, and you assign the crosses to essential points on both the source and destination images. The program then calculates the difference between the images and melds the two together. The speed is quite good, but it won't create a morph instantly. Taking a look at the example anim, you can see that the program does make very good attempts, although it would have been better if the choice had not been two such opposites – Elle and Claudia – and if the morph had been done over more than just five frames, so that it had been smoother. Still, it's not bad.

It's a very impressive program for PD and it's easy to use. Check out the demo and I wouldn't be surprised if you didn't find the £6 registration well worth it. One last thing, for those people interested and who didn't realise, morphing is short for metamorphosing, which was judged not hip enough by certain Hollywood special effects people. Tuh! Honestly.

Verdict: 78%

Clipart Slideshow

Not much to say about this one. This is a single disk with 100 black and white images. The disk has been made bootable, so in addition to being able to view them and use them in paint programs, you can sit back and watch them in a slideshow to see what's there. The slideshow works quite well, wiping the images on and off in a few different ways. The images themselves vary from those that everyone's seen to a couple that I've not come across, but I guess are still PD images. It's a decent collection for £1 and saves you the trouble of drawing them.



The clipart on the Slideshow varies and offers some useful pictures, but many are quite old.

Verdict: 80%

Vark 9

Vark's back again with another selection of utilities, and it's a blinder. There is something approaching excitement that comes with the discovery of a well-compiled disk. I know how difficult it is to put together a disk with lots of good, small programs. There just aren't that many around and you have to scour every inch of the virtual globe to get a good collection. Vark seems to be born to it. He has an ability to track down some of the most useful and best utilities around.

The disk autoboots giving you a menu and the chance to read the docs for each program as well as trying to run it. You can then move any programs that you want on to your system. This disk is not really of interest to the novice because it contains CLI-only commands. However, if you've got the hang of that, then it's a treat. I've actually seen some of the programs before, because I've also sourced them and included them on Coverdisks, but there's more here than just those and even some that I hadn't come across.

One of the ones that really interests me is the audio compressor that uses lossy compression for samples (like JPEGs for sounds). It's excellent and works very well. There are nine compression levels and two versions for different machines. I hope Vark doesn't get too miffed, but I was so impressed that I've included it on this month's Coverdisks (Technical Zone). It can halve the size of a sample, which can then be further reduced with archiving to about a third of the size that archiving alone can achieve.

Anyway, you can check that out for yourself. There are many other great programs on here to look at. There's Flushlibs to clear unused

ImageStudio 2.2.0

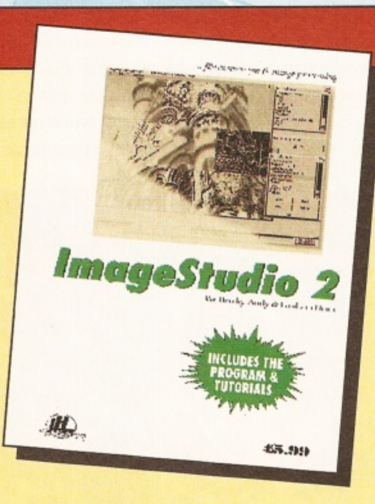
ImageStudio is an incredibly popular image processing program. It was awarded 92 per cent in this very section in AS53, when it also appeared on our Coverdisk.

It's powerful and yet costs only £10 to register. To make it even more attractive, the authors have teamed up with LH Publishing (headed by AS DTP expert Larry Hickmott). There is a full, printed manual available for £5.88. It comes with the latest version of the unregistered program on two disks. Registered users can use this to upgrade their program for free with their keyfile. New users can then register the program.

The book is black and white, but well printed, with plenty ofpictures explaining how to use the program. If you've got ImageStudio, but need some help getting the most out of it, this book can help. It also covers the ARexx capabilities well.

So, you can now have a full image processor with a manual for just £16. Not bad, but the authors should realise that competition is hotting up with at least two other Freeware programs around and the Licenceware Blackboard 4 is available for less.

ImageStudio is a very good program and well worth the money, but I think Image Engineer 2 will be a worthy competitor.



The book is available from LH Publishing, 13 Gairloch Avenue, Bletchley, MK2 3DH.

Verdict: 77%

libraries from RAM and Flick for viewing FLI animations (and it is really smooth).

There's Diskspeed (I know it's a golden oldie, but it's still very popular), as well as IntroMaker for creating intro bootblocks; SCSIspeed for checking SCSI drives and SCopy, which is my favourite copy replacement (get hold of this and replace your copy command, but don't forget to register with the author – the speed increase is phenomenal). Oh, there's loads more too. I can't possibly go into all of them.

To show just how dedicated he is, Vark has not only powerpacked the text files and used Ppmore (which saves you loads of space), he's also used Stonecracker (instead of using Powerpacker) to pack the executables because it's even more efficient. Just top marks. Superb. Get it. Now. Honest.

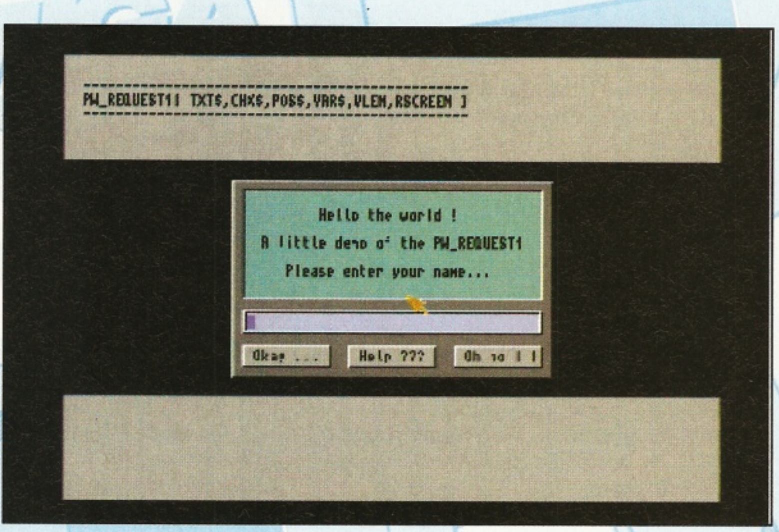
Verdict: 98% Star buy

Remdate II

Computerised Filofaxes are a bit of a double-edged sword. On the one hand, they cut through the ties of memory and tell you when you're supposed to be doing something as opposed to relying on your feeble and fallible brain. On the other hand, they only do this if you remember to update them.

Remdate II is a new program that's designed to help you remember birthdays, addresses, events and anything else you should keep in your diary. The author, Andrew Whiteley, has obviously heard about Digita's Organiser, because he has incorporated many of the same ideas into his program. There's a quote of the day, in case you feel literary, there's information about events in the past that have occurred on the day and there's a list of events for whichever year you want to examine. It makes it a bit like a mini history book-type diary.

Now, to use this, you need to make sure that you've got the date set correctly on the clock and so it's probably best for people with battery backed-up clocks and even better for those with a hard drive. There's even a icon for the WBStartUp drawer so that the program is launched at each boot (without the full interface being loaded) – which means you can be automatically informed of any events.



Yet more extensions for AMOS programmers, with this new program, Power Procedures.

PD submissions

If you have some exciting PD disks that you'd like to be considered, send them into the magazine at the usual address, clearly marked as a PD Submission. We welcome any type of disk, except games.

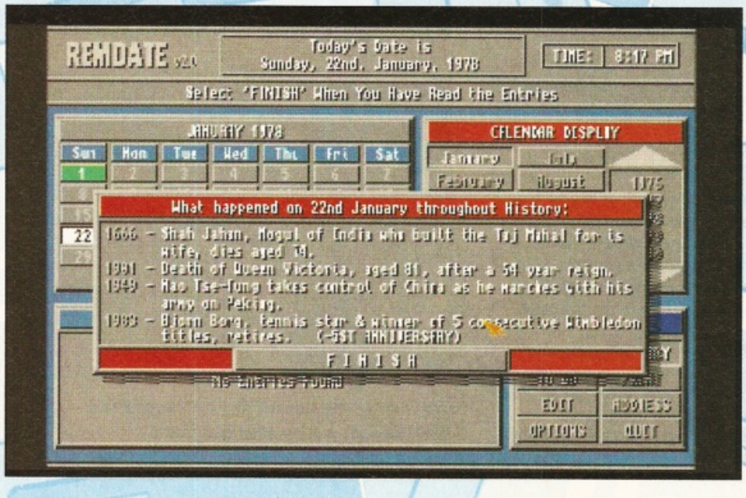
If you are a PD house, make sure you include all the information necessary, such as how to contact you and how much the disks cost and how people can pay.

If you are the author of the program, state where people can get your program from, and whether you would like us to consider it for inclusion on a future ShopperChoice Coverdisk.

Information about new PD houses or PD authors is accepted for inclusion in the PD directory – see the directory for details.

The interface isn't the nicest I've ever seen, even a different choice of colours would have been better. Still, that's not much of a complaint. The unregistered version is not crippled, but the author asks for a very reasonable £5-£10. The other point is that whenever I quit the program, it reported that it had crashed, but then didn't seem to and worked fine and had all the changes saved. Odd. Oh, and I'd have liked to have been able to multi-task. Not being able to swap back to Workbench is a bit of a pain.

Verdict: 90% Star buy



Remdate II has a great deal to offer in terms of electronic organiser software.

Power Procedures

Er. AMOS stuff again. Blimey. Get this. The language is proclaimed dead by the all-knowing Europress. The AMOS authors ignore them and keep on using it. Further extensions are made by commercial and Shareware authors alike. Tonnes of programs are still written in it. The licence to produce it is allowed and AMOS is back on the market. Basically, this is a language that refuses to go away.

Right, so what's this program all about? Well, as I've mentioned, the AMOS requesters are bloody awful. It appears that most people agree with me. This program can, among many other things, help you change them. There's a demo version of this program as well as a sort of show reel that lets you look at the example requesters to see whether it's the sort of thing you want to do with your program. The requesters vary greatly from the file requester to ones with multiple responses. While they are still not perfect – doing that annoying scrolling appearance – they are a vast improvement on the original.

If you're an AMOS programmer, you should certainly take a look at this demo version, because I think you'll be rather tempted to get the full version. The good thing about the demo is that you can try incorporating the new requesters into your programs (their functionality is only crippled in the number of times they'll work), so you really can see what difference they'll make to your efforts.

Verdict: 81%

Your First Pony

Now I know sod all about ponies, so it was with some modicum of amusement that I received a set of disks that told me everything I never wanted to know about them. Dutiful to the last, I loaded the program. It is a Hypertext presentation that offers a lot of textual advice together with picture material to back it up. (If ever there was a 'chick's disk', this is it – lots of pictures of cute ponies.)

Actually, I shouldn't mock. This is a very informative title. Should you be interested in ponies or have children that want to learn about them, then this has a lot to offer. OK, so it's a pretty narrow topic, but it's quite interesting to

▶ 84

see the Amiga being used to educate on such an unusual subject.

This title used to be Licenceware, but with the demise of CLR, it has now been designated as Shareware.

Verdict: 80%

RAF Fastjets

Ah! After the 'chick's disk', comes the bloke's disk! (Sorry, there's not an equally derogatory term for men – bloke was the closest I could think of.) *[Try 'dick' – Ed.]*

This disk provides a set of documents, diagrams and pictures all about the jets used by the RAF today and about the variety of weapons that they can deploy.



Get to know your airborne warfare with this informative collection.

You can read up on all the specs and how good the missiles are at blowing the crap out of everything. This is the stuff for real men. Anyway, like the pony disks, RAF Fastjets is very informative and is a good source of information. And because the text is broken up with pictures, it makes it an easier and more enjoyable read. This is another good title which is well worth the time for those whose hobbies include weapons of mass destruction. Or if you're a spy, then this could help to make your job easier. Just send the disk back home.

By the way, I'm giving this program slightly more marks, not because of the sexism I've just displayed (which was all very tongue-in-cheek so please don't send me any letter bombs or burnt bras), but because it actually looks slightly better than the Hypertext and the diagrams are of a better quality. ■

Verdict: 83%

Internet Select ;-)

Fractal Universe

There are lots of fractal generating programs around, but they're still popular, mainly because there's something oddly fascinating about them. It's like the Magic Eye pictures – I mean, you don't look at them because you really want to see some grey donkey. It's just interesting.

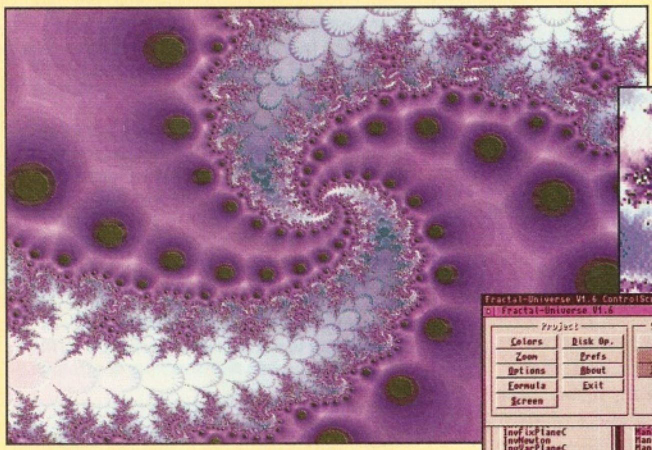
This program comes with a couple of versions, one designed for 68000 and one for accelerated Amigas with an FPU. When I tried to de-archive it, I found a CRC error with the 68000, but that could have occurred when downloading and if it is an error in the archive, I'm sure that a new one will be uploaded by the time you read this.

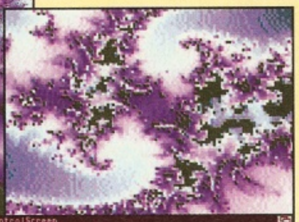
There are many different types of fractals for you to 'play' with. You can adjust the way that they are calculated and so change them, and zoom in and out. In other words, everything you'd expect.

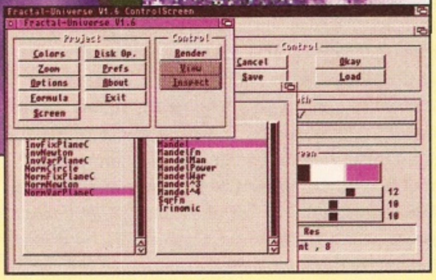
This is a very competent package that's a must for those who like fractals. In addition to the original archive, there are lots of extra archives which contain additional pictures.

Archive: fu1_62.lha & fu_exotics1.lha (& 2-4)
Source: aminet/gfx/fract/

Verdict: 80%







Fractal Universe has masses of options and is the bees knees of fractal generators. Oh yes, if you like fractals, you're in for a treat. Also available are a selection of example pictures.

SplatterPaint

Despite the number of image processors arriving in the PD, there are still very few actual paint packages around. SplatterPaint is a new one that is worth a look for those who just want to muck around.

Styled in the mould of other paint packages. SplatterPaint comes across as an early version. Because of the exceptional level of commercial offerings, it's very hard for PD programs to get anywhere near. SplatterPaint doesn't either really. But it does have a few interesting brushes that make it quite a good program to play around in and give to younger kids to create some horrific monstrosity that you're going to have to pretend to be impressed with.

SplatterPaint is fine as far as it goes. It has some bugs and needs more work doing to it, but if it gets updated and worked upon, then it's got a real future.



SplatterPaint is fun to mess around in, but doesn't offer any real use.

Archive: SplatterPt167.lha
Source: aminet/gfx/edit/

Verdict: 70%

Browser II

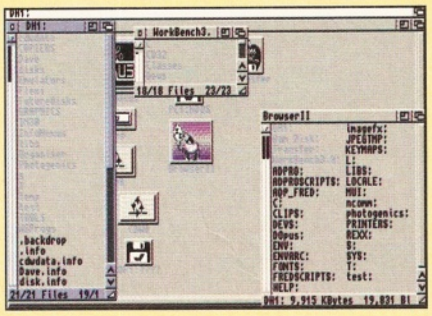
Another type of program that's been heavily produced in the PD is file managers. The best thing about PD/Shareware programs is that you can have lots of them and try them all out for next to nothing and see which one suits you.

Browser II is going to prove very popular indeed. Unlike many other file managers, this program sits on Workbench and then every time you open a window it can be a Browser window, which means that you can perform all the Browser operations on it, instead of the usual Workbench ones. In other words, it's very much along the lines of Directory Opus 5.

I can't recommend this highly enough. For the price or the time it takes to download this program, you've got to take a look. It might be exactly what you've been waiting for.

Archive: BrowserII.lha
Source: aminet/util/dir/

Verdict: 95% Star buy



Browser II can unlock the power of your Workbench. A very neat program.

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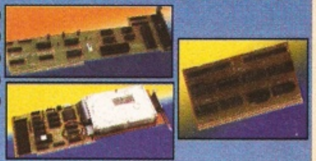
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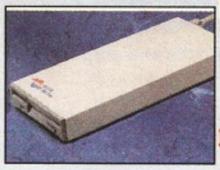
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Talking Shop

This month in Talking Shop: Information to the magazines!; Aural Illusion disk problems solved; and one reader wins a Canon printer.

We would like to hear from anyone who has splashed out for one of the new A1200s. What do you think of the new machines and the software bundle that comes with them? Why not put pen to paper and share your opinions with us?

Get your finger out!

£25 Winner

Come on AT (Amiga Technologies), take your finger out of your %$@@!! It's magazines like Amiga Format, Amiga Shopper and AUI that have kept Amiga users happy over the last year. If you want the info to get to the right people why bother with CTW? Who are they anyway?

It seems that all Escom are thinking about is getting back the money that they used to buy Commodore – if that is the case then give CTW the big E – and come to where your name will reach over 100,000 people – not just 6,000 – they will only be interested in PCs anyway. So come on AT take your head out of neutral and get in third gear. Amiga Format and Amiga Shopper are the mags that need your info.

David Coutts, Switzerland

We do, David, we do.

Date dilemma

Congratulations for keeping Amiga Shopper going so well, but also a despairing question: why have I just received cover-date November in the middle of September? This is getting downright silly, especially when you see what is written up as advance notice of an event that started before the magazine arrived.

Put your foot down, do, and let's get back to a more reasonable match between cover-date and real date. I never did understand your predecessor's arguments for the 'month in hand' style, anyway, and it doesn't happen with other monthlies I subscribe to.

Niels Grundtvig Nielsen, E-mail

There is a good reason why the cover dates of the last few issues of Amiga Shopper have seemed a little out of line with their on-sale dates. You see, we have a special Christmas issue for you this year. Which means that there are 13 issues of Amiga Shopper for 1995.

Actually, you'll notice that quite a few monthly magazines are on sale in the month before their cover-date. I know it seems bonkers, but that's publishing for you!

Please, please me

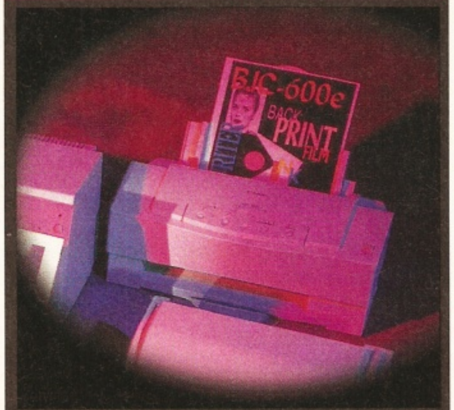
Coverdisks, difficult to please everyone, but across the spectrum of serious Amiga mags, AS, AF, AC, CU, AUI and EM, there's something to please everybody. I buy them all, so over the last two years or so, I've built up a good collection of top quality spreadsheets, databases, word processors, etc.

I use mainly Prodata, Maxiplan 4, OpusV4, Personal Paint v6.1 and ImageFX 1.5 all from Coverdisks and have bought Wordworth 1.2, then upgraded to 3.1 (best £50 I spent), and recently 3.1r2 (thanks for the tip Larry). DPaint 4 came with the A1200. Your own Coverdisks have always been high quality and since you poached, bribed, begged or stole David Taylor from AUI they are even better, he seems to have a knack for digging up useful little programs.

Peter Fox, Doncaster

Thank you for your kind words, Peter. David does an excellent job on our Coverdisks and he spends much of his time searching for the best programs he can.

Canon compo winner!



Remember the competition in Amiga Shopper November 1995 to win a Canon BJC-600e printer? Well, the closing date has been and gone and we have drawn one reader's name out of the hat: Mr. D.H. Banks from Penrith in Cumbria. Congratulations Mr. Banks.

We have another excellent competition for you to enter this month too. Turn to page 45 and you could win a copy of Wordworth version 5.

Amiga versus PC

I have read many letters concerning the future of the Amiga and comparisons between the different computer platforms. It is true that now the relative price of a standard Amiga will buy a far superior PC system, but there are other things to consider.

The PC is an on-going concern. That is, the user has to continually invest money to get the best out of the machine and its software. Then there is the initial investment, and the cost of software; you can buy a basic Amiga and add to it over the years; similarly, you can have a basic PC (a 386, 4Mb system) and discover that nothing will work on it.

The Amiga is also unique in its software pricing; the closest competitor to Organiser, for example, is In Control on the Macintosh, which costs double the price of Organiser. You can buy a new Amiga with Photogenics for the retail price of Photoshop. Word for Windows, as another example, still costs more than a second-hand Amiga 1200, with a copy of Wordworth 2. Wordworth and Final Writer may, presently, lack

Aural Illusion Coverdisk

I am the author of Aural Illusion 1.17 which you just put on the December Coverdisk. I noticed what could present a few problems in the documentation to some users and thought I would mention them.

Loading samples was not entirely clear. If the loading buttons are not used a sample must be loaded into a range, if a range isn't selected the sample won't load.

The RAW 16 LSB file type was added to allow the loading of 16-bit WAVs, VOCs and other PC sample files. If, however, the file is 8-bit it should be loaded as RAW 8 then inverted. You do not need to invert 16-bit files.

When a sample is stopped playing at low sample rates there is a delay between pressing the button and actually stopping. This affects all machines, not just the slower ones. (It's what you get for using Commodore playback routines!)

The playback can also stutter but this should only ever happen on slower machines if another task is using a lot of CPU power.

Nicholas Blachford, Blachford Technologies



Subjects of interest and how to contact us

£25 Winner

We want you to write in to Talking Shop to tell us which Amiga-related articles you would like to see featured in Amiga Shopper. AS is, after all, your magazine, and for us to keep giving you all the information you want, we need you to tell us what else you are looking for. It could be an interview with an industry figure, a Supertest of monitors, a tutorial on a particular program or a review of a certain product that we haven't done. We can't promise that everyone's ideas will be used, but if several people ask for the same feature, then we will act upon it.

Or you could just write to us and tell us what you think of Amiga Technologies' plans for your machine and how you think they should be developing the Amiga.

And remember that the Star letter of the month wins £25! Send your ideas in to:

Talking Shop, Amiga Shopper,
Future Publishing, 30 Monmouth Street,
Bath, Avon BA1 2BW.

Alternatively, E-mail your letters to:

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All the letters received at these addresses will be considered for publication, unless you specifically advise us otherwise.

the advanced features of Word and Word Perfect, but how many people actually push these Amiga packages to their limits?

Many Amiga users have complained that they want Word for Workbench, but how many people would actually buy it? The requirements that this package would place on the hardware, along with the price, would limit its appeal dramatically. Amiga users complain if they have to invest in their machine; Sim City 2000, TFX and PageStream 3 are just three examples. Because of these factors, companies such as Microsoft would never be able to compete (effectively) in the Amiga market. The Amiga can be a highly cost-effective and productive system for small businesses, home users and graphic applications, if it receives the correct channels of distribution and marketing. At the moment, Escom seem to have bought Commodore's marketing policy along with their technology.

One last point I would like to raise is the future of Amiga technology. I have read that the next generation of Amigas will have a RISC processor, retargetable graphics and no custom chip set. Does this mean that the Amiga will lose its hidden power and individuality, by losing the custom chip set? Does it also mean that the Amiga will have the power to display 24-bit graphics, without the dreaded HAM fringing?

And what about software development – news in this field has been non-existent. The multi-threaded nature of Opus 5, for instance, puts Workbench to shame and openly serves to display its weaknesses. 24-bit datatype support, on the other hand, will give Amiga applications professional results and the ability to support every conceivable file format.

Ami-FileSafe boasts idiot-proof hard drive security – will this become the standard? What about CrossDOS Professional and CrossMAC? The news of the next generation Workbench has been virtually non-existent, and this is one area that will greatly appeal to the industry and current Amiga users. I hope that future revisions of Workbench are not going to become few and far between, with the high cost.

Ryan Morse, Milton Keynes, Bucks

You may be interested to know that next month we will be comparing the Operating System of the Amiga with that of the PC and the Mac to find out which is the best value.

In the meantime, what do readers think? Write in to Talking Shop and we'll print your opinions on the Amiga vs the PC and the Mac.

Back to BASICs

May I suggest a future series of tutorials for the magazine. You have been running tutorials on Assembler and C recently, so I think it's about time you gave BASIC programmers a look in. I think this would be welcomed by a lot of people as you have just given away HiSoft BASIC 1.

In particular I'm sure anyone who upgrades to HiSoft BASIC 2 would welcome some help with creating gadgets.

I consider myself a reasonable BASIC programmer, but I am not getting anywhere with this – the manual is not much help and the examples supplied require breaking down to one thing at a time.

Mr. G. Proctor, Rossendale, Lancashire

You will be pleased to hear that we are planning a series of BASIC tutorials when the six-part AMOS one has run its course.

Taking the RISC

Amiga Technologies seem intent on killing what I believe to be a very powerful computer, the prices are WAY too high and technology way out of date.

In the 'free' bundled software you get a lot of 'serious' packages – unfortunately without a hard drive to put them on most people won't get much use out of them. Maybe Amiga Technologies should rename themselves Commodore – they've got the right attitude.

I've noticed over the years that Amiga people have started to become 'dreamers', I mean I've had at least one of every model of Amiga that's ever been released. When I talk to people nowadays all I hear are rantings of "Oh wait for the RISC Amiga" or "Oh AAA will kill the PC", but the problem is that no one has seen, or knows about any such chips.

The best example of this I can give is when the CD32 was released, within two days there were posts on some Usenet groups of the CD64 with its quad-speed drive and amazing 030 processor and its availability in about three month's time. Why don't people wake up to the fact that all they've got is what's here now. I don't expect to see a major upgrade to the Amiga (e.g. RISC, or a new graphics chipset) for at least 6-10 months, and if I do see one then, I'll be pretty amazed.

All Amiga Technologies have to do at the moment is get a good user base, with reasonably expanded machines (hard disk/more RAM). Then work on some better chips, or faster processors.

John (AxeMan) Million, E-mail

Amiga Technologies are keeping pretty quiet about new developments at the moment, they are concentrating on getting the Amiga back into the marketplace. However, we have heard rumours of plans to upgrade the Amiga – I think your estimate of six months or so before we see anything is about right. As soon as we hear any news about further developments, we'll let you know! ■



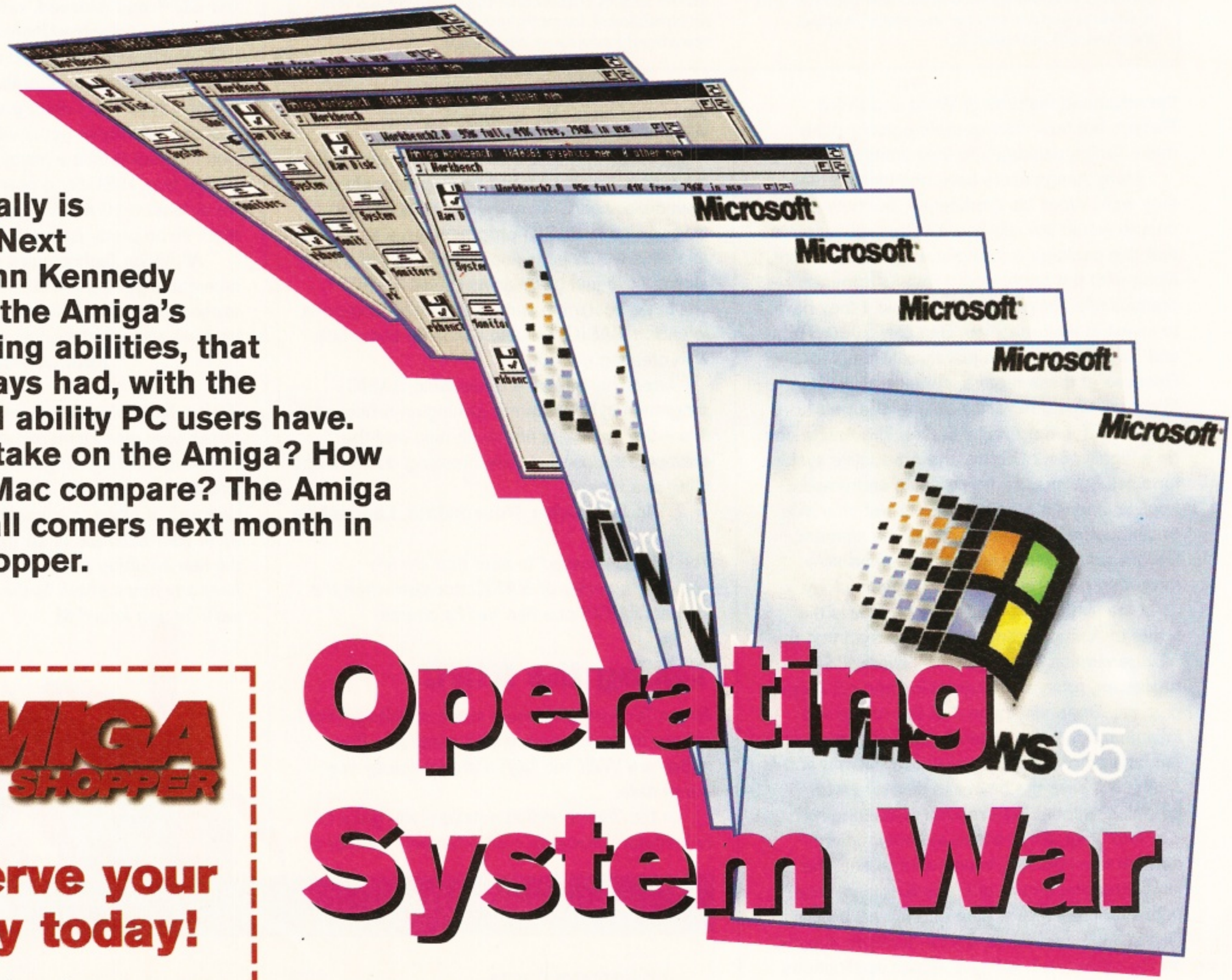
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Next **month**

So which Operating System really is the best? Next month, John Kennedy compares the Amiga's multi-tasking abilities, that we've always had, with the new-found ability PC users have. Can a PC take on the Amiga? How does the Mac compare? The Amiga takes on all comers next month in Amiga Shopper.

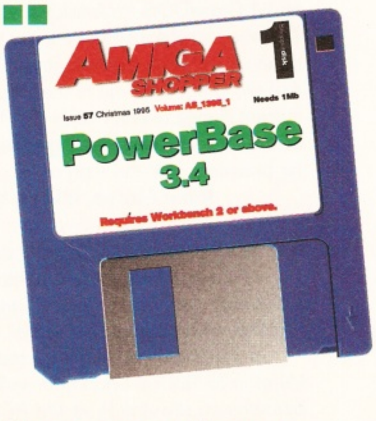


Operating System War

And the rest...

We have a real treat for your next month: not only do we have the powerful database PowerBase 3.4 on our Coverdisks, but we also have a huge business Supertest. We will bring you advice on what types of software and hardware you need to get your business started and we will also recommend some of the best packages around.

The rest of the issue will be packed to the brim with reviews of all the newest Amiga product, we also have another 3D feature from Mojo and the latest installment of our DTP, Comms and AMOS tutorials. And then there will be more news of the World Of Amiga Show, plus the newest and best PD around – and help with your Amiga problems. There's so much in it!



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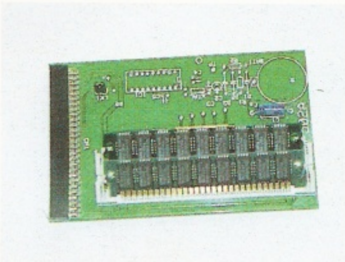
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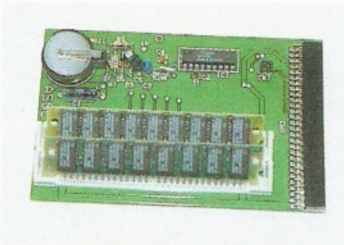
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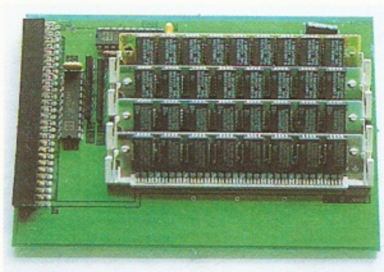
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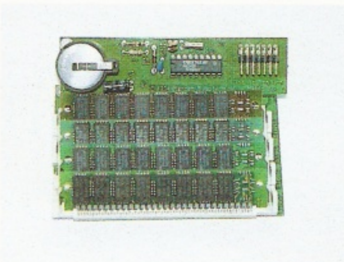


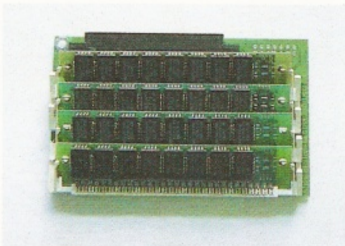
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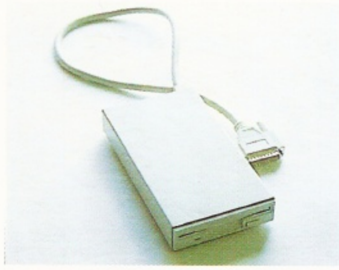
A500 Plus Expansion to 2Mb

RRP **£24.99**
Our price **£19.99**





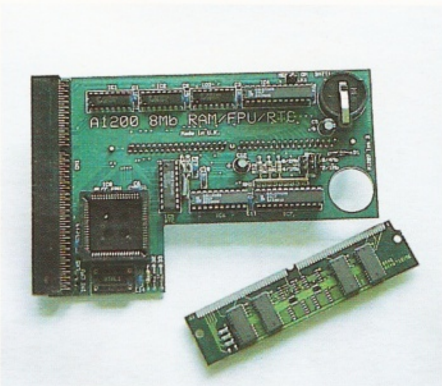
	RRP	*Our price*
A600 Expansion to 2Mb	**£29.99**	**£23.99**
Also available with clock	**£39.99**	**£31.99**

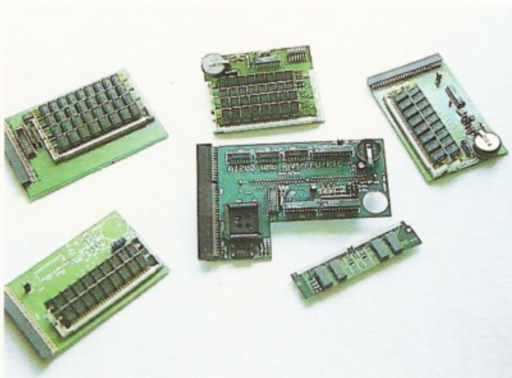




	RRP	*Our price*
External Drive (All Amigas)	**£59.99**	**£39.99**

A1200 Ram Accelerator





Uses 32bit, 72 way Simms
Built in real-time clock
Optional maths co-processor
Various configurations

	RRP	*Our Price*
0Mb	**£59.99**	**£47.99**
1Mb	**£99.99**	**£82.99**
2Mb	**£129.99**	**£107.99**
4Mb	**£189.99**	**£157.99**
8Mb	**£309.99**	**£257.99**
33MHz F.P.U (and crystal)	**£49.99**	**£37.99**

Also S-port (connect CD32 to Amiga). With CD and networking software £21.99
A1200 internal real-time clock £10.99

Ring for best prices on 30 and 72 way SIMMS, hard drives, modems, mice etc and we will try to beat any genuine deal.

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Shopper**disks**

*No, we're not joking or making it up. Thanks to advanced archiving, there's over **5Mb** stored on to these disks. What's more, they automatically unpack for you. There's all this...*



IntOS

AMOS has proved itself to be one of the most popular programming languages ever. Even some commercial titles have been written with it, but it does have its shortcomings. This extension for AMOS from OTM Software brings new power to the AMOS programmer and turns AMOS into a true language for creating business software and utility programs. IntOS was rated 88 per cent by Amiga Format in AF76 (October 1995).

This is the full and unrestricted version of IntOS and all you need is a copy of the AMOS language to take advantage of the new power. You can transform the way your programs look and act with IntOS.



Want to display AGA pictures? IntOS is the answer. ASL requester? IntOS to the rescue. If you use AMOS, you need IntOS.

AMOSzine

To compliment our IntOS give-away and to go with our AMOS tutorial on page 64, this is a special edition of AMOSzine, the F1 Licenceware title that brings articles, tutorials and source code to AMOS programmers. Exclusively compiled for you, this issue offers the very best from previous issues and shows you just how much help there is around for AMOS beginners and experts.

Shopper**Choice**

After scouring the globe, we bring you the essential collection of the new PD and Shareware programs.

Technical**Zone**

An excellent collection of programs this month for the more advanced user. There's the promised update of XDM, the disk packer that outperforms DMS, with both a Shell and Workbench interface. For sample compression, there's a program that offers lossy compression – like a JPEG for samples. Plus four more programs!

Utility**Zone**

Three fine utilities to make your Workbench shine. Extractor takes all that CLI hassle from archivers, NewEdit brings better power to your environment and MenuKeys allows you to jump around menus from the keyboard.

3D**Zone**

A demo from the new skeletal objects for Imagine reviewed this issue.

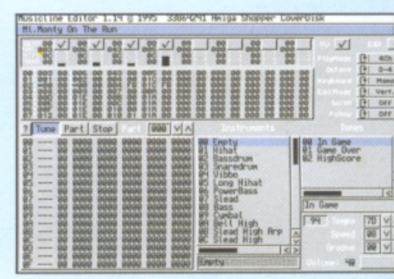
Information**Zone**

***The* comprehensive guide to PD Houses and Amiga User Groups.**

Application**Zone**

MusicLine Editor

After we gave this program a massive 95 per cent in last month's issue, we tracked down the programmers and convinced them to make a version exclusively for Amiga Shopper readers. You can now make incredible modules with the real power that MusicLine Editor offers. Included are some example modules.

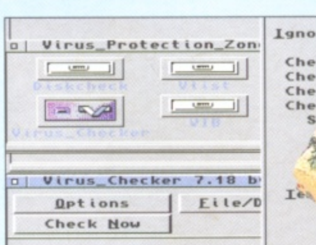


PDBase

With such a huge amount of data being packed on to our Coverdisks, PDBase is an ideal way to keep track of all your programs.

Virus Protection**Zone**

Getting infected by a virus is no joke. That's why we've collected the programs you need to avoid and cure your virus problems. Together with this month's feature on page 22, you can make sure your Amiga is safe.



Virus Checker 7.18

The latest version of the Amiga's famous virus checker and exterminator. This program can stop you from ever infecting your disks with a virus.

Virus Info Base

A huge database that gives you all the information about every known virus. It explains the symptoms, what each virus does, how dangerous it is and, best of all, what you can do if you are infected. This program is compiled by Safe Hex International (SHI) and is invaluable. (Requires AmigaGuide.library).

But that's not all, there's also a program that will check that no changes are made to a disk; plus a document that lists all known dangerous or fake program archives so you can avoid any infected programs.

